JAM-PACKED AND OOZING WITH C64 GOODNESS...

Trace the family tree of the shoot-'em-up

COMMODORE FORMAT

If you've got a C64 then get this

ISSUE 49 ● £2.95 ● OCTOBER 1994

CHECK THIS OUT

AND ON A PACKED COVERTAPE THIS MONTH...

FANTASY WORLD DIZZY
COMPLETE EGGY ADVENTURE

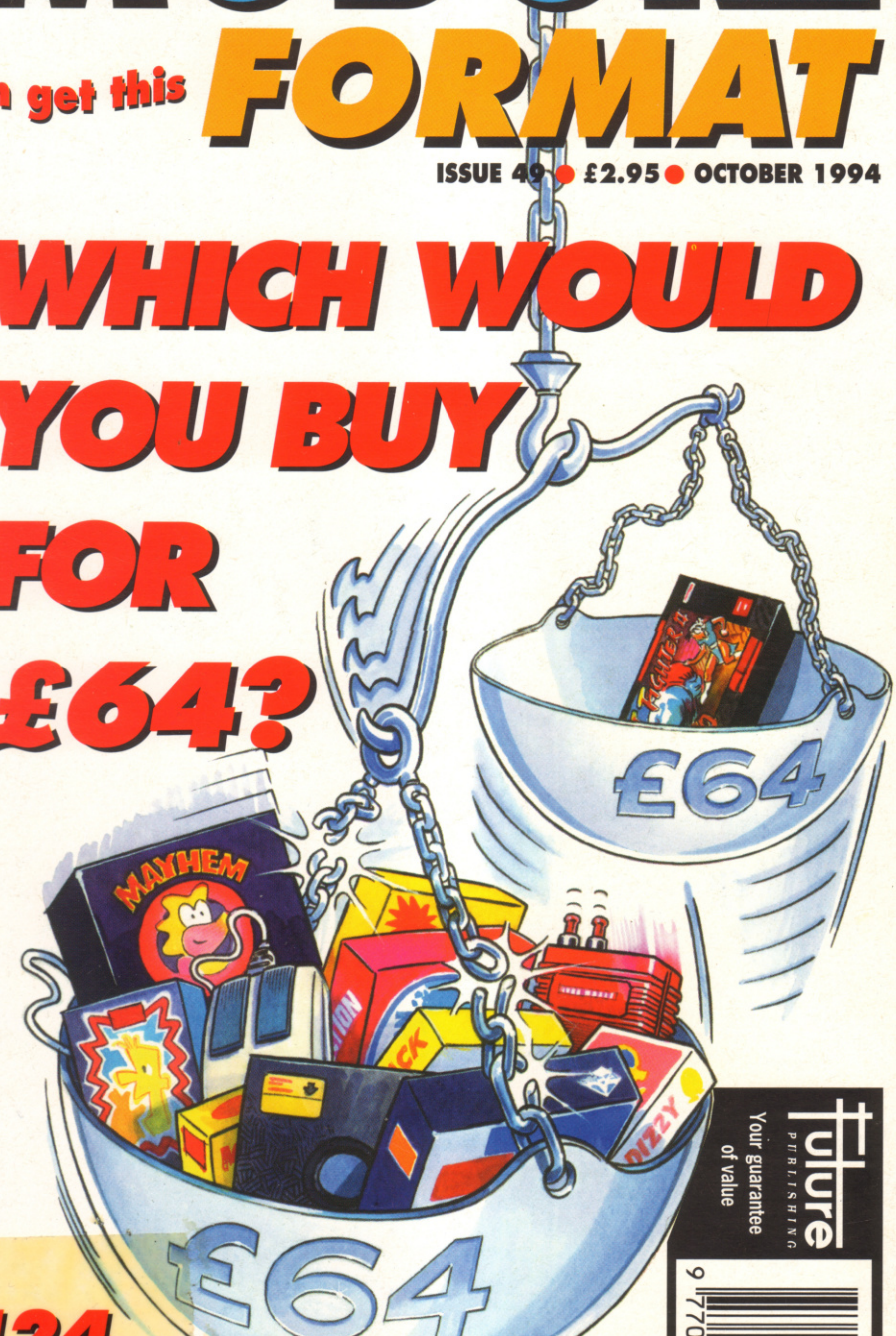
PENGUIN TOWERS
CORKER WINNER IN DEMO SHOCK!

COLOUR MIXING • TECHIE TIPS
TWO TOP TECHIE TUTORIALS

When you buy this magazine from the newsagent's you shouldn't be able to read this. If you can, then someone's swiped the covertape. Ask your newsagent for a replacement.

Tape to disk
SMART!
Turn to p.9.

WHICH WOULD YOU BUY FOR £64?



124 brand new C64 games or one console cart? *124?* You'd better believe it, and we prove it's possible on page 10...

future PUBLISHING
Your guarantee of value

PLUS Discover how to create loads of new, non-standard colours on your C64.

ACTION REPLAY VI

Designed and Manufactured by DATEL ELECTRONICS

THE MOST POWERFUL, FRIENDLY AND FEATURE PACKED UTILITY CARTRIDGE EVER CONCEIVED!

NOW ONLY £24.99
WHILE STOCKS LAST

ACTION REPLAY
COMMODORE 64

TURBO LOADER
- Load 202 block program in under 6 seconds - world's fastest disk serial loader. On-board RAM and ROM achieves high loading speeds. Works with 1541/1571 Oceanic/1581.

INFINITE LIVES GENERATOR
- Automatic infinite lives!! Very easy to use, works with many programs. No user knowledge required.

PROF MACHINE CODE MONITOR
- Full 64K Freezer Monitor - examine ALL memory, including stack, I/O area and registers in their frozen state. Ideal for de-bugging or just for fun!

SPRITE CONTROL
- Freeze the action and view the sprites - watch the animation - customise your games -kill sprite collisions.

FREEZER FACILITY
- Now you can make your old slow loading programs load faster. Simply freeze the action and save to tape or disk to reload at superfast speed - no more waiting for programs to load.

DISK COPY
- Easy to use disk/file copier. Much faster than conventional methods. Ideal for backing up data disks.

TAPE TURBO
- This feature will add Turbo Reload to the programs that you save to tape - no user knowledge required.

FAST FORMAT
- Format an entire disk in about 10 seconds - no more messing about.

PRINTER DUMP - Print out your frozen screen to printer - MPS 801, 803, Epson, Star, etc. - very versatile.

CENTRONICS INTERFACE
- For parallel printers, Star, Epson, etc. Print out listings with graphic characters etc. (Cable required for parallel port £12.99)

SCREEN EDITOR
- Now you can edit the entire frozen screen with this text edit or - change names on high scores, etc. Great fun!!

GRAPHICS SUPPORT UTILITIES DISK

SLIDE SHOW - View your favourite screens in a slide show type display
BLOW UP - Unique utility allows you to take any part of a picture & "blow it up" to full screen size
SPRITE EDITOR - A complete sprite editor helps you to create or edit sprites
MESSAGE MAKER - Any screen captured with Action Replay or created with a graphics package can be turned into a scrolling screen message with music.

ONLY£9.99

THE REVIEWERS SAID...

"I'm stunned, amazed and totally impressed. This is easily the best value for money cartridge. THE CARTRIDGE KING!"
COMMODORE DISK USER

WARNING 1988 COPYRIGHT ACT WARNING

Datel Electronics Ltd., neither condones or authorises the use of it's products for the reproduction of copyright material.
The backup facilities of this product are designed to reproduce only software such as Public Domain material, the users own programs or software where permission to make backups has been clearly given.
It is illegal to make copies, even for your own use, of copyright material, without the clear permission of the copyright owner, or the licencee thereof.

DATEL ELECTRONICS LIMITED

HOW TO ORDER

24 HOUR MAIL ORDER HOTLINE
PHONE
0782 744707

Access VISA SWITCH

OR CALL AT OURLONDON SHOP:- DATEL ELECTRONICS

NOW A TOTAL MOUSE/ GRAPHICS PACKAGE FOR YOUR COMMODORE 64/128 AT A TRULY UNBEATABLE PRICE!!

COMMODORE MOUSE SYSTEM

COMPLETE WITH

OCP ADVANCED ART STUDIO

DATEL Electronics LIMITED

NOW ONLY £24.99

- This commodore Mouse is a high resolution two button mouse featuring optical counting, teflon guides, microswitches, rubber coated ball and high quality interface.
- When combined with OCP Advanced Art Studio this graphics package is quite simply the best system available. The features are unmatched...
- Create an image - shrink it, expand it, move it, rotate it, copy it, colour it, etc., etc,
- Spray patterns or shades, make elastic lines - stretch and manipulate shapes.
- Zoom in to add detail in fine mode.
- Pulldown/Icon driven menus for ease of use
- Mouse operation, plus joystick and keyboard control.
- 16 pens, 8 sprays, 16 brushes - so flexible anyone can create superb graphics easily.
- Full cut and paste facilities plus excellent printer support.

TOTAL PACKAGE INCLUDES MOUSE/ MOUSE MAT/HOLDER AND OCP ADVANCED ART STUDIO
PLEASE STATE IF YOU REQUIRE TAPE OR DISK

FREE!

MOUSE MAT
AND
MOUSE HOLDER
(WORTH £12.99)
WITH EACH PACKAGE

LC 100 COLOUR PRINTER PACKAGE

NOW YOU CAN PRINT OUT YOUR PICTURES IN FULL COLOUR!

- The Star LC100 Colour Printer not only prints in Near Letter Quality for your regular jobs but also prints out your pictures from Art Studio, Action Replay, etc., in fantastic colour!
- LC100 is a full Centronics printer so it works with other computers (Amiga, ST, PC etc.)
- Made possible by Datel's unique colour printer driver - now you can have a hardcopy in up to 16 colours!!
- No more to buy.

PACKAGE INCLUDES STAR LC100 COLOUR PRINTER RRP £199.00
CENTRONICS PRINTER LEAD RRP £12.99
DATEL COLOUR PRINTER DRIVER SOFTWARE RRP £19.99
NORMALLY £231.98

COMPLETE PACKAGE NOW ONLY £199.00

COLOUR PRINTER DRIVER AVAILABLE SEPARATELY ONLY £19.99

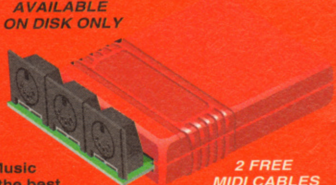
- If you already have an LC10, LC100 or LC200 Colour Printer we can supply the Driver separately.
- Works with Serial Version of LC10, Parallel Port, Sprint 128, etc.

OTHER COMMODORE ACCESSORIES

DATEL MIDI 64 INTERFACE PLUS ADVANCED MUSIC SYSTEM

AVAILABLE
ON DISK ONLY

ONLY £39.99



2 FREE
MIDI CABLES

The Advanced Music System may be the best MIDI/music package produced for the 64/128 offering a huge range of musical composition features & MIDI compatibility, with the Datel MIDI Interface you have the TOTAL MIDI SOLUTION!

ONLY £29.99

- Quality Commodore compatible Data Recorder.
- Pause control.
- Three digit position counter.
- Counter reset.
- Comes complete - no more to buy!

ONLY £16.99

- 3 additional cartridge slots provided.
- Wear and tear on the original connector reduced.
- Switch provided for selecting between game cartridges rather than constant unplugging.
- Reset button built-in.

FAX
0782
744292

MAIL
Send Cheques, Postal Orders or credit card details to:-

DATEL ELECTRONICS LTD. GOVAN ROAD,
FENTON INDUSTRIAL ESTATE,FENTON, STOKE-ON-TRENT,
ST4 2RS, ENGLAND.

DATEL ELECTRONICS LIMITED

222 TOTTENHAM COURT RD, LONDON W1 TEL: 071 580 6460

COMMODORE FORMAT

Welcome to another fantablious issue of the world's best selling Commodore magazine...

CONTENTS

ISSUE 49 • OCTOBER 1994

10 HOW MANY GAMES CAN YOU GET FOR £64?

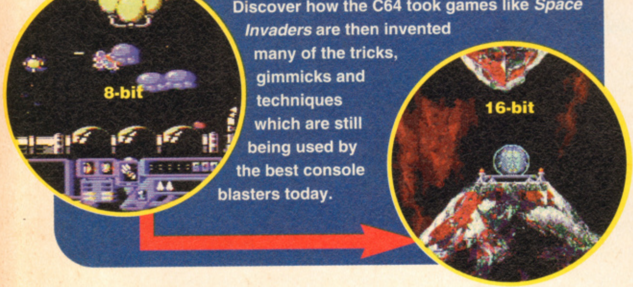
The answer might surprise you. Unless you've read our cover, that is. But you still might be sceptical, so check out this feature which proves that we can put our money where our mouths are.

26 COLOUR MIXING

You know those annoying teachers who say things like, "there's no such word as can't"? Well, we reckon the Electric Boys must have had one, because there's nothing they won't accept can't be done on the C64. This time around they're out to show us how we can squeeze more colours out of our C64s.

33 THE HISTORY OF THE SHOOT-'EM-UP

Discover how the C64 took games like *Space Invaders* are then invented many of the tricks, gimmicks and techniques which are still being used by the best console blasters today.



14 PD FORMAT

PD demos – love 'em or loathe 'em, you certainly can't deny some of the effects they produce are impressive.

17 GAME REVIEW: FRED'S BACK 3

We're not quite sure what Fred is, where he's been or why he decided to come back, for that matter. But we're pretty glad he did, because this stunning-looking Mario-style platformer is seriously smokin'.

Fred – for the star of a cute platformer he ain't too cute...

18 GAMEBUSTERS

Cheats, tips and POKES for... (deep breath)... *The Legend of Sinbad, Aliens, Wild West Seymour, Mayhem In Monsterland* (of course), *Monty on the Run, Creatures, Bonecruncher, Reaxion, Howard the Duck, Soccer Boss* and *Cool World*. How do we pack so much in?

Creatures **gets busted.**

SPECIAL FEATURES

10 WHAT WOULD YOU SPEND YOUR £64 ON?
One copy Street Fighter 2 Turbo or 124 different C64 games? Which sounds the better deal to you?

13 GAME DIARY: THE MAKING OF 10TH DAN
The beat-'em-up to end all beat-'em-ups grows ever nearer completion... though it's still not that near.

34 THE HISTORY OF THE SHOOT-'EM-UP
We can guarantee you've never seen anything like this before – a geneological chart of shoot-'em-ups.

GAMES

17 FRED'S BACK 3
Fred's Back and he's doing a pretty good impression of Mario. Bouncy platform action at its bounciest.

14 PD FORMAT
A demo, a demo, my kingdom for a demo. Actually I haven't got a kingdom – will a stamp and an SAE do?

18 GAMEBUSTERS
This is not a section about putting an axe through your least favourite cassette games. It does, however, relieve tension in a very similar way if you're hopelessly stuck on a game.

SERIOUS STUFF

23 MEAN MACHINE CODE
The penultimate part of a series which is destined to go down in history. As what, we're not sure.

26 COLOUR MIXING
You too can produce graphics like those seen on the Mean Machine demo a couple of months back.

29 TECHIE TIPS
That Jason Finch fellow gets all philanthropic again (no he doesn't – he gets paid to help people out with their techie problems).

REGULARS

5 SNIPPETS
News of loadsa games coming out over the next couple of months... it's almost like a real news page again. Yip, yip coyote (or words to that effect).

6 LETTERS
TMB, the exact opposite of an agony uncle – you write in and he gives you an inferiority complex.

16 READERS ADS
Will someone tell us if the pen pal ads are successful?

32 BACK ISSUES
They're selling out fast. You'd better get a move on.

9 ON THE POWERPACK...

FANTASY WORLD DIZZY

At last! A full adventure featuring *Dizzy* and all his ovoid chums for the first time on a *CF* covertape. And, of course, it's one of the best. Would we give you less?

PENGUIN TOWERS DEMO

Back in issue 44 we gave this slice of Euro-software a corker-winning 90 per cent. Now it finally reaches these shores and we give you a piece of the action.

COLOUR MIXING

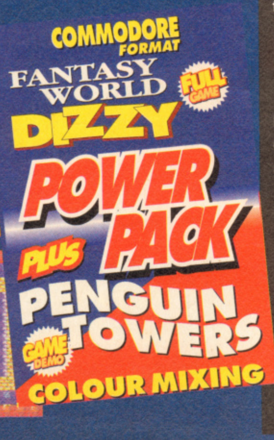
Want to know how to improve your C64 graphics? This demo and the feature on page 26 will show you how.

TECHIE TIPS

This month's techie listings in a ready-made format.

Dizzy

Penguin Towers



TURN TO PAGE 9 FOR THE FULL COVERTAPE BRIEFING... ➤

SNIPPETS

Two computer fairs, three new games, two special offers and the resurfacing of a lost shoot-'em-up. Must be the news pages.

8-BIT FAIR

The second best computer show of the year (after the FES, of course) looks set to be an 8-bit Computer Fair that's being planned for mid-October in Cheshire by a new company called SF Productions (SF stands for 64, by the way, so we know where their loyalties lie).

At the moment details are still to be finalised, but SF are hoping to have leading names from the CPC, C64 and Spectrum scenes displaying all their latest hardware and software. Entrance for visitors will be free, while exhibitors will need to pay £3.50 a stall.

If you're interested in attending or exhibiting then get in contact with LS Bevington, 348 Station Road, Winsford, Cheshire, CW7 3DG.

NEW TWO

CF subscribers should have received a little surprise with their copies this month, a free sampler copy of a new mag from Future called *Ultimate Future Games*. Basically, if you're at all interested in the latest developments in computer games, this is the magazine you need to buy.

It'll cover all the latest consoles, including the Jaguar, the Saturn and Nintendo's and Sony's latest some-number-divisible-by-eight-bit machines. The first issue is out next month and will cost you a mere 95p – and that'll include some brill covermount.

But if you're more into the serious side of computing then Future's other new mag will be more up your street. Or should that be highway? Information highway, that is. Because our other newie is *.NET* magazine, which is a must-buy for anyone who ever goes online and taps the global electronic network.

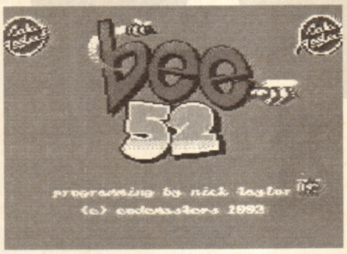
The first issue of *.NET* should be out by the time you read this, and it'll cost you just £2.95.

BEE'S BACK

Remember *Bee 52*? It was an insectoid shoot-'em-up from CodeMasters which we reviewed back in issue 36 and gave a respectable 81 per cent. The problem was, CodeMasters never released it.

Well, a Commodore fan and programmer, Nick Taylor, got in touch with the Codies and asked if he could market the game since they had lost interest – and they agreed (*we like the Codies – Dave*).

So if you want to get hold of the game, it costs £4.99 on either tape or disk and is available from Nick Taylor (who you make the cheques and POs payable to), 171 Hollingden Terrace, Brighton, East Sussex BA1 7HF. Nice one Nick.



***Bee 52* finally shows up on the C64**

WATCH OUT FOR EVERGLADE

Here's a bit of a unique offer – as far as the C64 goes, anyway. Everglade Software (who get quite a few mentions in our main feature this month which starts on page 10) are giving away a free watch with every two cassettes, discs or cartridges bought before 15th October. Can't be bad.

Everglade can be contacted at 68 Telford Street, Inverness, Scotland, IV3 5LS or call them on ☎ 0463 240168. CF

FES-TIVAL TIME

It's nearly here – the computer show you cannot afford to miss, the Future Entertainment Show, Earl's Court in London from 26th-30th October.

If you're at all serious about computing there'll be loads there to get you salivating. Because this time around there's going to lots more to get involved in, and we don't just mean playing games.

Whether you use your computer for art, music, communications or programming, all the latest developments in these fields are going to be on display and available for you to have a test drive yourself.

There's a huge dealer-area where you'll be able to get an excellent price on virtually any piece of hardware, including great bargains on printers.

Future Publishing's magazines will be organising special events in the three theatre areas at the show. There will be discussions, demos and debates featuring some of the interactive entertainment industry's leading figures. There'll be items like expert panels/joystick juries reviewing products live, discussions about the future of interactive entertainment and exclusive premiers of many of the biggest products of 1995.

GUIDANCE

There'll be a showguide on sale on the door (for £2) containing a full list of all exhibitors, a map of where everything is and (this is the best bit) a set of vouchers offering discounts off gear that you can buy at the show. You can also order one through the hotline.

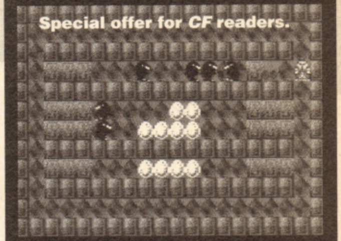
So order your tickets now because they're £6 in advance and £7 on the door. The ticket hotline is ☎ 0369 4235.

The Future Entertainment Show
Earls Court 2
26th – 30th October 1994
CD-Rom ○ Amiga ○ Mac ○ PC ○ CD-i ○ Consoles

BETTER THAN MAYHEM?

Sounds hard to believe doesn't it? But the Electric Boys reckon they've got hold of a game (again from Europe) that really does give the dinosaur a run for his money. It's called *Heavenbound*, and they are currently doing some conversion work on it so that tape owners can play the thing. Details on the game are sketchy at the moment, but if all goes well, expect to see a review next month – can we give something 101 per cent?

P-P-P-PICK UP A PENGUIN



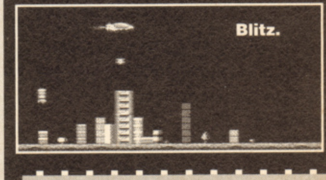
So, you've played the fabulous demo on the covertape, and now you want the full game of *Penguin Towers*. But hold up before you write off to Visualize to order a copy. Check out this little lot first.

Penguin Towers is available on tape or disk for £7.99. But don't send cheques or POs yet. Instead just reserve a copy by sending Visualise an SAE, and you will hear from them (well, Jon, actually) in due course.

If you order a copy before 30th October and you enclose the token below with your order, then you'll also get a free copy of *Escape From Arth* (photocopies of the token are fine).

● Meanwhile, Visualise have also just released two other brand new games. *Zzzz*, a rather classy adventure with loads of spiffy graphics is available now for £2.99 on tape or disk. *Blitz 2000*, which is a bit like *City Bomber*, is a mere £1.99 on either tape or disk. Both games will be reviewed next month.

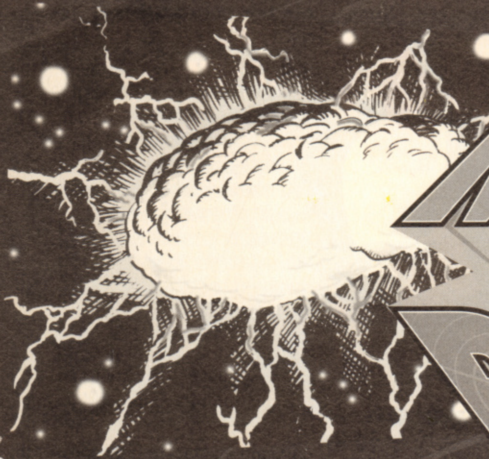
Contact Visualize at 9 De Grey Road, King's Lynn, Norfolk PE30 4PH. Cheques should be made payable to: Visualize Software. Please allow 28 days for delivery.



Blitz.

PENGUIN TOWERS/ COMMODORE FORMAT SPECIAL OFFER TOKEN

This entitles the sender to a free copy of *Escape From Arth* when they order *Penguin Towers* from Visualize Software for £7.99. Offer ends 30th October 1994.



THE MIGHTY BRAIN

You heard about people with letters after their name. Well every month TMB has a completely different set of letters after his name. But that could have something to do with the fact that he's CF's correspondence correspondent...

CONTROL FREAK

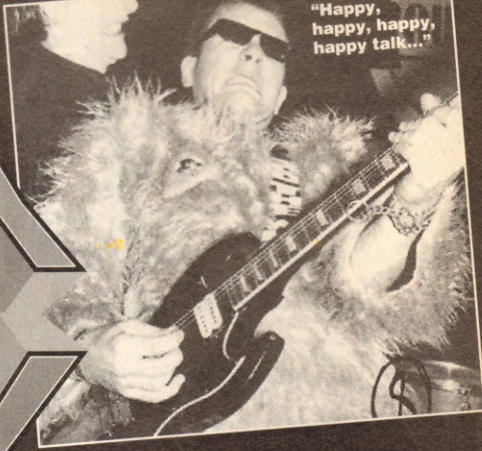
Dear Sir (*I like this man – TMB*),

I recently bought a C64. My son wanted a Sega but I won the argument (he who has the cash has the power). After his initial reluctance, he now seems quite pleased about it. The fact that it came with over 100 games helped, and all for less than his cousin's SNES (which has had the same game on it for the past eight weeks – sad).

Anyway, the reason I am writing (about time too) is that one of the games that we have is an old Kixx release called *Infiltrator*. Unfortunately there are no instructions; the previous owner said he bought it at a car boot sale, and there were no instructions with it. Could you possibly help us as the cover makes it look like quite a good game?

D Brennon, Lincoln

Don't worry, you're not missing much. *Infiltrator* is no great shakes. The helicopter bits are pretty bog standard flight sim stuff and the adventure bits are similarly dull. But if anyone has some spare instructions, send them to us and we'll pass them on. If D Brennon hasn't sold the game again by then. **TMB**



"Happy, happy, happy, happy talk..."

SUPPORTIVE

Dear Captain Sensible (*wot? – TMB*),

After reading the excellent Well 'Ard article in *CF*47 I just had to write to the Electric Boys and congratulate them on actually doing something

WORST GAMES EVER

1 *Dizzy Panic*
2 *Frankie Goes To Hollywood*
3 *Steg The Slug*
4 *Streetfighter 2*
5 *Arac*
6 *Cauldron 2*
7 *Bigfoot*
8 *Murray Mouse Supercop*
9 *Sleepwalker*
10 *Cluedo*

Luke Croll, Sheerness

This is what we want – vitriol, spleen-venting, ire, unashamed subjective criticism, all the best things about human nature, I feel. Let's see some more bottom tens please. **TMB**

HITTING A NERVE

Dear Brighty Main,

1 Do you recommend *Pipemania*?
2 Which is better: *Nightshift* or *Klax*?
3 What is the ultimate platform game?
4 Will Roger Frames ever, ever, ever, ever, ever, ever, ever, ever, ever, ever...
5 I've... oh, sorry, I didn't finish question four.
4 (Again) ...ever, ever, ever, ever, ever, ever, ever, ever, ever, ever be back?
5 (Properly this time) I've got a song that'll get on your nerves...
6 Get on your nerves...
7 Get on your nerves...
8 I've got a song that'll get on your nerves...
9 Get on your nerves...
10 Did it get on your nerves?
11 Where can I get *DJ Puff's Volcanic Caper*?
12 I bet you're going to answer, 'Uncle Dave's Buy-A-Rama' to question 12
13 What happened to The Gauntlet?
14 What happened to 66 pages?
15 Why are you lot at *Commodore Format* always getting M Bison, Balrog and Vega (from *Street Fighter 2*) mixed up?
16 What is the best ever shoot-'em-up?
17 Can you take all these questions?
18 I think that *Mayhem In Monsterland* will be the number one game in the All-Time Top 50 poll and *Street Fighter 2* will be the runner up.
19 Do you hate Plymouth Argyle? 'Cos I do.
20 I think I would call most of the *Dizzy* games pick-'em-ups.
21 Which do you prefer: *WWF* or *Nobby The Aardvark*?
22 How old are you?
23 Is this the longest letter ever?
24 Could you please title this letter... (*er, no, because I couldn't read your writing – TMB*).

Steven Higgins, Essex

Yes, it's M Vebisog. Or is it Balgason? Er... not sure.

1 Wholeheartedly... if I had a heart, that is. Make that, whole cerebral-cortexedly.
2 That depends. If you like pure puzzle games, *Klax* is one of the purest examples of the form. *Nightshift*, however, has more variety in its gameplay and more action.
3 Do you really need to ask that? Where have you been since issue 38? The third moon of Croilath?
4 I sincerely hope not, but you know what they say about bad pennies. Or even bad penny pinchers.
5-10 Yes. But compared to any 2 Unlimited song it's an Ivor Novello Award winner.
11 Anywhere you want to. As long you find someone who's already got the game, who's willing to sell it and who'll meet you there.
12 Hah.
13 Having failed to win any Oscars, this violent Clint Eastwood cop movie did moderate business at the cinema, but has subsequently been shown in edited versions on late night TV. Interestingly, it was the first film to feature a credit for First Aid.
14 They're being spread over two issues these days.
15 I never get them mixed up. Those humans on the crew do because, well, they're human.
16 John Woo's *Hard Boiled*, I believe.
17 A mere trifle.
18 I, of course, know what the results will be, but in the interest of suspense you will have to wait until next issue to find out.
19 No. I think that Peter Shilton has done a rather impressive job there, in fact.
20 Well they're certainly not pick-me-ups.
21 No contest. *Nobby the Aardvark* has those fat pansies in tights floored every time.
22 That's a very personal question.
23 No. You should have seen some of the love letters Josephine wrote to Napoleon. They made *War and Peace* look like *The Mister Men*.
24 Sorry. **TMB**

creative and positive for the C64 instead of sitting back and watching it die away like the Sinclair Speccy and the other 8-bit machines. I wish them all the luck in the world.

I have written to them and told them that I would buy the hardware, if it was relatively cheap and not £300-£400 for a hard drive. I hope every other C64 owner writes to them too, because I wouldn't like to see them wasting their time.

Matthew Cole, County Durham

CMD
RAMlink

Go on, you know you want one.

Apparently the Boys have had a lot of interest in the various bits of hardware they wrote about in *CF*47, so hopefully matters will develop further. But don't think that because other people are showing interest you don't need to – if you think hard drives and RAMlinks sound like the sort of thing you're after, get in touch with the EBs now. **TMB**

TIME-WASTING

Dear TMB,

If you print this letter I will ask Future Publishing to give you more time to play *Wizzball*, which happens to be my favourite game (hint, hint).

En (1): How many Norwegian subscribers do you have?

To (2): Why does *CF* have 34 pages instead of 66?

Tre (3) "Hi, mates!" to all C64-lovers in New South Wales, Australia (I've been there, you know).

Fire (4): How do you like my Norwegian numbering?

Fem (5): If Apex/Digital Graffiti decide to make *MIM2* I would buy it straight away as I loved *MIM*. Brendan Reid (TMB, *CF*47) had a very good idea about the sequel having more diagonal platforms. A save-able high score table would be great too.

Seks (6): Are you going to make my letter the Letter Of The Month?

Sju (7): Come and visit me some time.

Atte (8): How much is a 1,000Mb hard drive?

Ni (9): Tell Jason Finch that I appreciate his machine code series very much.

Time for those Scandinavian clichés.

Ti (10): What about some more of those great demos on the Power Pack?

Elleve (11): Hei, all nordmenn som leser *CF* og digger C64 (that's Norwegian, but don't worry, it isn't anything dirty).

Tolv (12): I'd better be off to bed now; it's nearly 3.45am. Good night.

Vebjorn Koksvik, Norway

Yat (1) Three.

Yee (2) Norwegians obviously can't count. We have 36 pages.

Sam (3) Did you visit Condobolin while you were there? Great place.

See (4) It's not as good as my Chinese numbering.

Um (5) Anybody got any more ideas about what should be in a *MIM* sequel?

Look (6) No. Tough luck.

Chat (7) When you least expect it.

Bat (8) A lot.

Gow (9) No – he's big headed enough as it is.

Sup (10) Anything is possible. Well apart from Arsenal playing decent football.

Sup-Yat (11) Keh dri ker treki pahl terragone, Kriapthii Kaa (that's Kelhirian, but don't worry – nobody will be able to translate it).

Sup-Yee (12) Ah, but it's only 3.45pm in the middle of the Pacific. **TMB**

WORRIED

Dear TMB,

Please answer my questions because I know that with your infinite wisdom they will be no problem.

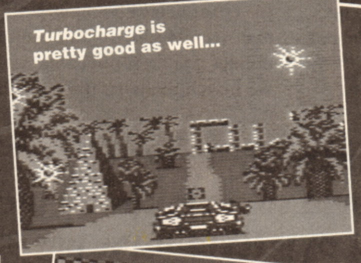
1 Do games on disk wear out quicker than ones on tape? I sometimes have trouble loading a couple of my older disk games, but rarely any trouble with my older tape games. I am worried about my beloved *MIM* disk which I use a lot.

2 Only yesterday I completed *MIM* using no cheats except the brilliant maps printed in *CF*. I was quite touched by the scene at the end of the game when it showed *Mayhem* hugging Theo-Saurus. It was as if they were saying to each other, "Thank you for helping me change Monsterland into a happy, cheerful place, instead of a sad, dreary place. I could never have done it without you and now you will always be my friend." I hope there will be a sequel.

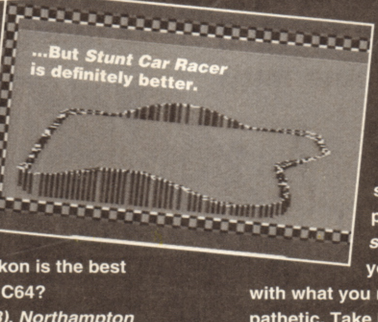
3 What do you reckon is the best driving sim on the C64?

Greg Shepherd (13), Northampton

***Stunt Car Racer* – one of the finest racing games ever.**



***Turbocharge* is pretty good as well...**



...But *Stunt Car Racer* is definitely better.

1 Games on disk don't exactly 'wear out' but they are more likely to become corrupted. Your best course of action is to back-up all your favourite software, then put the originals safely away somewhere. Use the software from the back-ups, and then if the disks do corrupt, you still have the originals.

2 I think I'm going to be sick.

3 That depends (as I always seem to be saying). *Stunt Car Racer* is superb, but a bit idiosyncratic. A more standard driving sim that still impresses is *Turbocharge*, allegedly the fastest game ever on the C64. *Supercars* is by far the best of the overhead-viewed racers. **TMB**

OVER-EFFUSIVE

Dear The Mighty Brain,

1 What happened to the Early Warning Scanner?

2 Why haven't we heard from Roger Frames in the last couple of mags?

3 Here is a puzzle for you. What is 127945193 x 7549210143/45.2? Bet you can't work that out.

4 I think the Electric Boys are excellent.

5 Oh dear.

6 So those greedy newsagents take £1 from the sale of your mag for themselves. I think I might subscribe from now on.

7 Tell the crew to keep up the good work. I have been impressed with recent Power Packs, especially 44, 45 and 47. And the mag itself is great, of course.

8 *Speech* is excellent – did you know it swears?

Well, I'd better go now. I will write to you again. Bye bye.

Dave Proudlock, Dumfries.

Commodore
64

1 To be brutally honest, it became faulty and unreliable.

2 Because we're lucky.

3 I wouldn't lower myself.

4 You are right.

5 Please don't call me dear, it's embarrassing.

6 A splendid idea.

7 Of course.

8 I bet you think *Carry On* films are really funny, as well. **TMB**

Will Roger ever escape from jail? We'll see...

BELLIGERENT

Dear Mr Brain,

I'm an avid Commodore fan and have been with your fine magazine from the start. I'm sorry, but I'm not convinced by your attempts to prove that the C64 isn't a dying breed and that it is just as powerful as a SNES or a Megadrive. Full marks to the Electric Boys for continuing to support the C64, but one wonders how they are managing to pay the bills – they can't exactly be rolling in it from selling Commodore hardware, can they?

Oh, and one last moan – the state of your once-excellent letters page (*hang on – I don't like the sound of this – TMB*). I accept it's not your fault and you can only make do with what you receive, but the vast majority of it is pathetic. Take issue 47 for example: a not-very-interesting list of Leon Bebbington's favourite games; someone winning letter of the month for asking if you like Aerosmith and finally, probably the biggest load of crap I have ever had the misfortune to come across – I am, of course, speaking about Timothy Watson's excuse for a letter. How on Earth can you justify printing such

➤

bilge? I will than Mr Watson to keep his childish comments to the playground in future.

Finally, a few corrections:

1 ***Parasol Stars*** **was completed, but the programmer had his house broken into and all his computer equipment stolen – including the disk containing C64** ***Parasol Stars*****. That's why it was never released.**

2 The C65 was also completed, but Commodore didn't think it was financially viable to release a machine so technically similar to the Amiga.

3 No, R Marshall, the console fad is not dead. Everyone in Great Yarmouth is backwards, that's all.

Oh, and definitely finally this time, here's my 10 worst games of all time…

Matthew Withers, Crewe

Ah yes, I must be scraping the bottom of the barrel if I have to resort to using letters like this. The *Parasol Stars* story is apocryphal at best (it's along the lines of, "Sorry, Miss, the dog ate my homework"). The comment about the C65 which you react to was sarcasm (okay, it's the lowest form of wit, but I was writing for humans, so I thought I'd better lower myself). Besides, there are a few C65s in use, mainly in the USA and Germany, but, their numbers barely make it into double figures. And as for the console games sales dipping dramatically, that, my friend, is a hard fact across the country, not just in Great Yarmouth. And sorry for not printing your Top 10 worst games; we didn't think they were very interesting. **TMB**

GREAT IN THEORY…

Dear Terribly Mutilated Beachball,
I think that you should put whatever game comes top of your all-time Top 50 Commodore 64 games poll on the covertape of issue 50.

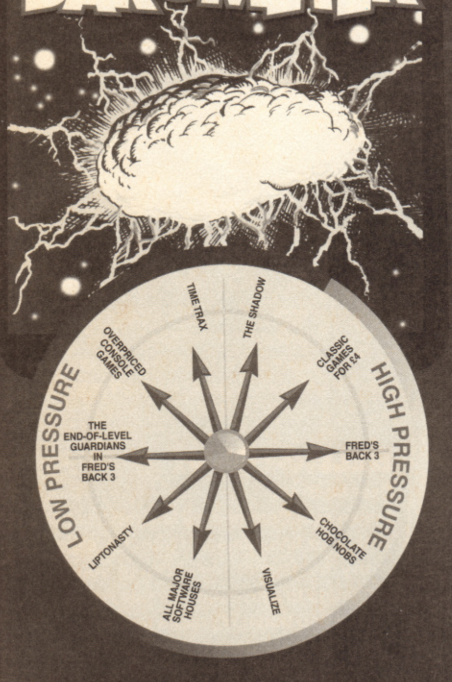
Sean Smith, Kirkby

It might sound like a good idea in theory but there's a hitch when we come to the reality of the situation. Presumably the top game will have received so many votes because people have already got it and played it – what's the point in giving them something they've already got? **TMB**

EXPRESS YOURSELF

Some people express themselves through sculpture. Others find their outlet through music. But the best way to give that inner angst a public face is to get your letter published in The Mighty Brain's section of *Commodore Format*. Forget Hockney, Rushdie and Lloyd-Webber. This is the forum for the true art of the 90s. So take part in this cultural revolution. Write to: TMB, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

THE MIGHTY BAROMETER



BITS 'N' PIECES

● Why don't you get some of these German games you keep mentioning released on your covertape?
T MacMillan (an old scener in a new 64 era)

That is, in fact, what we are attempting to do. Hopefully we will have some results in a couple of issues. **TMB**

● I know a shop which was selling one of your Power Packs.
Mark Cartwright, Worcester

Well, tell them it's illegal, and tell them who told you to tell them. And tell them we'll be around to sort them out if they don't stop. It's this sort of thing that gives the 8-bits a bad name. **TMB**

● Bring back the brilliant *Your Sinclair* from the dead.
Ashley Whitton, Reading

Hmm, resurrecting dead computer magazines is a long and complex business. For that we would need a party of 12 people – including two ex-*YS* writers and a Minister of Transport – to dance naked around a Spectrum +2 on the summer solstice just outside Slough Bus Station at 4.37pm. Not that I believe in Black Magic, but if anyone manages to arrange that, I'll pay to get the magazine up and running again. **TMB**

● Is it possible to get a version of Windows for the C64?
Timothy Wheaton, Addlestone

Unfortunately not. Though there have been some similar WIMP (Windows Icons Menus Pointers) systems written for the C64, none of them have ever really had much success. **TMB**

● Will the Electric Boys ever make anything for the RAMlink?
Robert Wintle, Plymouth

If the RAMlink sells in sufficient quantities, then yes, they will. **TMB**

● Why don't you review every C64 game ever in *CF*50?
Timothy Wheaton, Addlestone

Because we'd need an issue roughly the size of Uganda and three years in which to write it. Sorry. **TMB**

COMMODORE
FORMAT

CF49
October 1994
The eve of the golden age

Editorial & Advertising Offices:
Commodore Format, Future Publishing Ltd,
30 Monmouth Street, Bath, Avon BA1 2BW.
Tel: 0225 442244
Fax: 0225 446019

GUINESS
Editor Dave Golder
Art Editor Ollie Alderton

LAGER
Sales Executive Rob Bennett

G&TS
Editorial
Jason Finch • Andy Roberts
Jon Wells • Tony Mott • Russ Michaels
Cover Mike Roberts

SELECTED LIQUEURS
Production Co-ordinator Claire Booth
Ad Design Cherry Coad
Production Manager Fiona Milne
Scanners Simon Windsor, Chris Stocker, John Moore, Jason Titley, Mark Gover
Paper Controller Fiona Deane
Group Production Manager Judith Middleton

BAILEY'S
Joy ("Me first") • Carolyn
Cherrilyn • Carey • Jacki

SCRUMPY
Publisher Jim Douglas
Circulation Director Sue Hartley
Managing Director Greg Ingham

Commodore Format **is brought to you from its new premises in the outside loo at Future Publishing, the home of:** ***GamesMaster, Super Play, Total!, Amiga Power, Amiga Shopper, Mac Format, Sega Power, Amiga Format, PC Format, ST Format, Amstrad Action, Edge, PC Gamer*** **and** ***CD-ROM Today*****. Oh and some American mags too and a couple of lifestyle things (if your lifestyle includes things like caravans or woodworking, that is).**

If you want to phone us, make it a Wednesday or a Thursday, okay, otherwise you'll only get through to an annoying answerphone. By the way, we are not a techie helpline and we cannot (that's cannot, NOT will not) help you. If you want technical help write to Techie Tips (page 16) – that's what it's there for.

Commodore Format **is printed in the UK by William Gibbons and Sons.**

All material © Future Publishing 1994

ADVERTISING PROBLEMS
If you have a problem, query or complaint about an advertiser in this issue then contact The *CF* Advertising Department in writing at, Future Publishing, 30 Monmouth Street, Bath BA1 2BW.

Dave would like to thank: Fodders in Bath – they do a brilliant three cheese bagette.
Ollie would like to thank: Dave, for letting him escape after all these years.
Andy Roberts would like to thank: The Electric Boys for providing him with a game that's generated more copy than the Diana phone scandal.

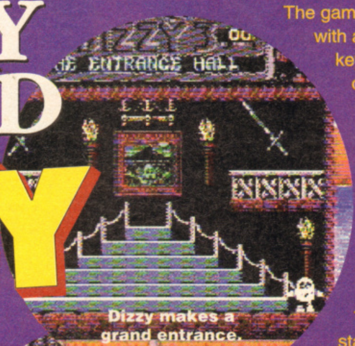
CF50 ON SALE 18TH OCTOBER

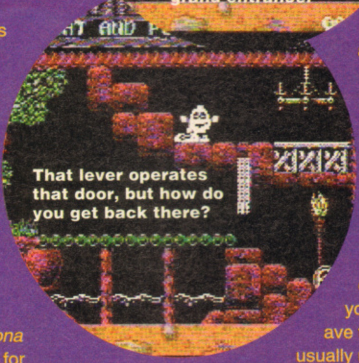
ABC **25,063** **PERIOD** Jun-Jan 1993
Member of the Audit Bureau of Circulation

POWER PACK

Dave Golder takes you on a guided tour around the covertape...

FANTASY WORLD DIZZY


Dizzy makes a grand entrance.


That lever operates that door, but how do you get back there?

Dizzy is a bit like Michael Caine. He's extremely popular and extremely prolific, but tends to fall foul of the critics. Because, you see, his quality control, like Mr Caine's, is not all it could be – in other words, he tends to appear in any old rubbish. And so his detractors gleefully point to complete turkeys like *Dizzy Panic* and *Dizzy Down the Rapids*. But it has to remembered that just as in Michael Caine's career there's a *Mona Lisa* for every *The Hand*, or an *Alfie* for every *Blue Ice*, Dizzy has appeared in his fair share of classics. *Fantasy World Dizzy* is one of them.

The plot's a bit thin, but the adventuring action is top notch, and the supporting cast of Dizzy regulars is on fine form. Dizzy and Daisy have been captured by the Evil King's trolls. Daisy has been sent to Wizard Weird's tallest tower while Dizzy ends up in a dungeon deep within the lower intestines of Fantasy World. He must escape and rescue his fair maid, before she reaches her sell-by date and goes a bit smelly. And who knows – there may be another mission after he's found her...?

And that's where you come in. You have to take control of the ovoid hero and help him on his quest(s). This requires a keen puzzling mind. The objects you find lying about the place are often the key to getting past the various obstacles.

The game can be played either with a joystick or from the keyboard; here's what does what:

Joystick left	z	Walk left/choose an object in inventory
Joystick right	x	walk right/choose an object in inventory
Fire	Space/Right Shift	Go to inventory
Q		Quit

To pick up an object, just stand next to it and go to the inventory; the object will automatically be added to the inventory list. To use or drop an object go to the inventory, select the object you want then press fire or Space/Right Shift. It's dead simple really.

Just a few more hints before we let you go off and crack this adventure (perhaps not the best term to use). Steer clear of fire and water, because you'll either be fried or boiled, you ave three lives and the wildlife is usually unfriendly… and pretty hungry.

And that's yer lot. It's over to you now. But if you're having trouble getting started, you might like to know that the Troll's are partial to juicy Granny Smith's… but failing that, they quite like apples as well.

COLOUR-MIXING

If you want to discover what this program's all about get to page 26 now. It's a new sort of demo, y'see. Not a game demo, like *Penguin Towers*. And not PD demo full of flashy graphics. But it might just help you design some flashy graphics, because what this demo's demoing is the graphical tricks that Russ Michael's covers in the first part of a two-part feature on creating C64 colours.

Do you dream in colour?

NO LOAD ZONE

CF
SIDE 2
POWERPACK
tape

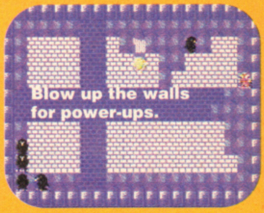
If you're having a hard time loading this month's Power Pack then plonk the duff tape in a jiffy bag, slip in a tape-sized SAE, seal it up and send it to: *CF*49 Tape Replacement Service, Ablex Audio Video Ltd., Harcourt Halesfield 14, Telford, Shropshire.

AH, YOU NOTICED...

Apologies for the mix-up with *Tilt* last month. The version on the covertape was the correct one, it was the instructions inside the mag that were wrong. Ooops. Anyway, CodeMasters' *Tilt* received a much higher *CF* rating that the Genias one, so you came out of the deal better off. However, if anyone is having problems working out how to play the game, please write in for a list of the proper instructions.

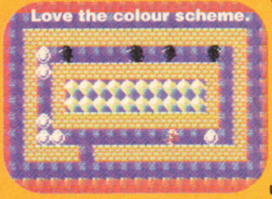
PENGUIN TOWERS

GAME DEMO


Blow up the walls for power-ups.

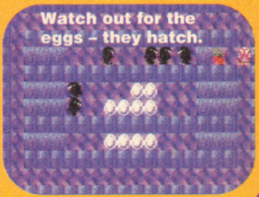
Penguins must have some seriously top class image consultants. How else do you explain how birds that look like milk bottles in dinner suits and waddle like pregnant weebles keep getting cast as villains? It's inconceivable. First we have Batman, and now we have this game.

Penguin Towers is basically *Bug Bomber* in which the bugs have been replaced by penguins, with hilarious results. Well, okay, perhaps not hilarious, but the game is brilliant fun. This demo features a few of the earlier levels of the game, and if you're not sending some dosh Visualise's way for the full version pretty soon after you had a go, we're a load of monkeys' second cousins removed.


Love the colour scheme.

What you need to do is blow up all the penguins on each level. You move around using the joystick while hitting fire drops the bomb. There are two types of walls – solid ones are indestructible, but the more patterned bricks can be blown away.

To kill a penguin it needs to get caught in the blast from you bombs. Be careful no to fry the eggs though, as this will produce mutant penguins who are really nasty. To help you out, there are a number of pick-ups that appear when you blow away the walls; we'll leave to discover what they do – it's more fun that way. Oh yeah, and there's also a bonus level hidden inside one of the bricks. Good luck.


Watch out for the eggs – they hatch.

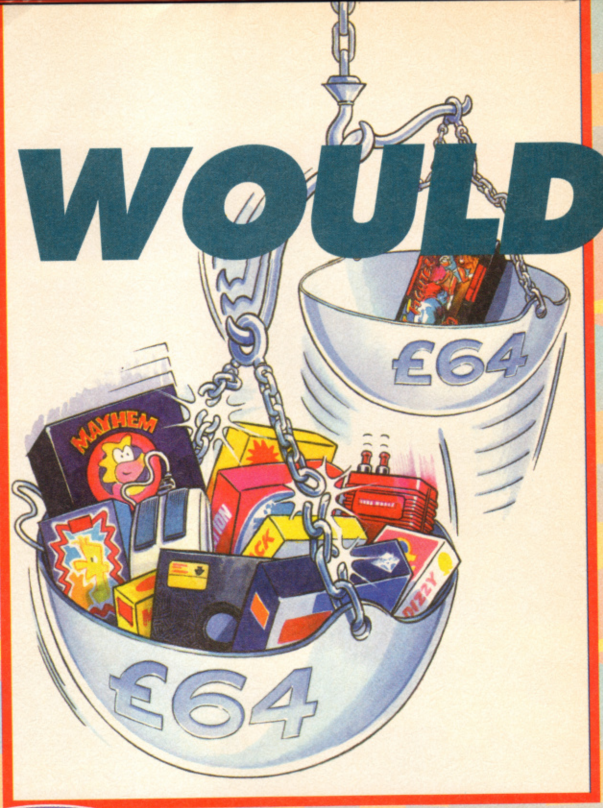
TECHIE TIPS

The perfect program for lethargic programmers everywhere. All of this month's techie listings from Techie Tips and Mean Machine Code freeze-dried and distilled into an easy-to-use form – in other words, they've all been done for you.

TAPE TO DISK

This month's Power Pack is also available on disk. To get the disk version simply cut out the token on the tape inlay card, write your name and full address on a piece of paper, pop 'em in an envelope with a cheque or postal order, made out to Ablex Audio Video, for £1.50 (to cover duplication costs) and send it to: **CF49 Tape To Disk, Ablex Audio Video Ltd, Harcourt Halesfield 14, Telford, Shropshire TF7 4QD.**

HOW FAR WOULD



Why spend megabucks on a console game when you can get mega amounts of C64 games for very few bucks? Dave Golder proves that cheap can leave you immensely cheerful.

So, what can you get in the way of computer entertainment for £64? Well, it could buy you one copy of *Street Fighter 2 Turbo* for the SNES. Sure *SF2*'s a great game, but is it 20 times better than a decent C64 game? No way. No way by a very large margin. And the fact is that you CAN still get 20 or even more really good NEW commercial C64 games for £64.

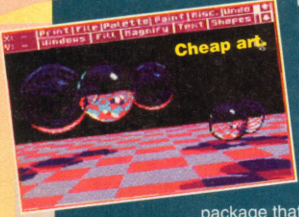
And it doesn't stop there – there's some great hardware and applications software also still available that'll leave you a huge wodge of change from £64.

Enough to buy yourself a few classic games, in fact. And if it's quantity rather than quality you're after, you could end up with a pile of shiny new games big enough to cover with a white sheet and call a life-size sculpture of the summit of Everest.

To prove how much fun you can have with a C64 and £64 we gave four C64-o-maniacs three score and, er, four quid to spend on Commodore goodies (actually, we didn't – we just told them to pretend; do you think we're made of money?). And here are the choices they made…

OLLIE ALDERTON
CF ART EDITOR

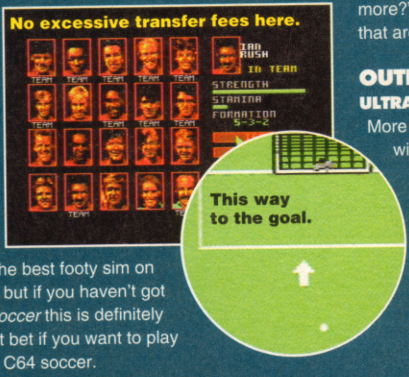
OCP ADVANCED ART STUDIO
£24.99 DATEL ☎ 0782 744707



Cheap art.

I mean, come on, what a barg. It's a bigger bargain than finding an original *God Save The Queen* on EMI for 45p at a car boot sale… well perhaps not, but it's a pretty big bargain anyway. It's a stunningly good art package that enables you to create and manipulate pictures with ease. It even comes with a mouse to makes things even simpler. If you haven't got it, why not? It comes on both tape and disk, so there are no excuses.

LIVERPOOL £8.99
WIZARD ☎ 0723 376586



No excessive transfer fees here.

This way to the goal.

Grandslam's excellent footy sim never quite gets the recognition it deserves, but I'm here to change all that. It's excellent. Perhaps not the best footy sim on the C64 ever, but if you haven't got *Microprose Soccer* this is definitely your next best bet if you want to play some serious C64 soccer.

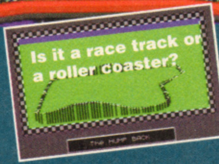
CREATURES £3.45
ULTRA SOFTWARE ☎ 0295 730060

The game which proved the Rowlands were a game-writing force to be reckoned with. Like its sequel and the brilliant *Mayhem* which followed it, you can show this to your console-owning mates to make 'em green with envy. And the 64 version is miles better than the Amiga version (which the Rowlands had no involvement in).

Creatures

STUNT CAR RACER £3.45
ULTRA SOFTWARE ☎ 0295 730060

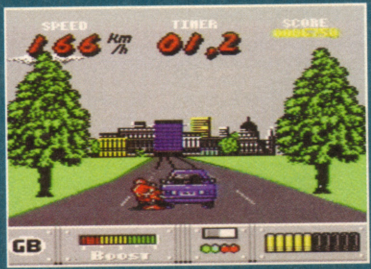
Racing hundreds of feet up in the air.


Is it a race track or a roller coaster?

Quite possibly the best ever driving sim. It's the sort of game that ancient gamers, who have moved on to consoles, speak of in hushed tones, asking, "why don't they make games like that any more?" A head-to-head against the computer on roads that are on ramps hundreds of feet in the air. Awesome.

OUTRUN EUROPA £3.45
ULTRA SOFTWARE ☎ 0295 730060

More racing action. I like my driving sims. This is the without doubt (don't argue) best of the *OutRun* series, involving a chase across Europe on various different high-speed vehicles. Great stuff.



He's not exactly keeping his distance.

SMASH TV
£4.99 (DISK)
WIZARD GAMES ☎ 0723 376586

Shoot-'em-ups have never been so violent – though all you're shooting is androids, so that's okay (just in case the Viewers' and Listeners' Association is tuned in). It's the TV gameshow that makes *Gladiators* look like *Countdown*. Superb stuff.

Smash TV: Mary Whitehouse, we think, would not approve.

XENON £2.50
WIZARD GAMES ☎ 0723 376586

Okay, the original *Xenon* is pretty much a shoot-'em-up by numbers, but I had to find something cheap to make up my £64 quotient, and this is still solid gaming fare. You can find console shoot-'em-ups that are ten times the price and half the fun.

NICK FALDO £10.99
WIZARD GAMES ☎ 0723 376586

Another outstanding Grandslam sports sim. It's a pity the company got their act together so late in the day. No exaggeration - this really gives a lot of console golf games a run for their money.

Golfing action that's on a par with the best on the consoles.

TOTAL: £62.81

YOUR £64 GO?

FORRESTER, EX CF WRITER

TURBO CROSS ASSEMBLER £14.99

THE ELECTRIC BOYS ☎ 081 668 7595

I love dabbling in Machine Code, me, and so an Assembler is an essential item. But even more essential is this *Cross Assembler* from EBES. Using the cable and the software you can link up two C64s and program like real programmers do, by having your code on two machines at once. Do all your assembly on one and check the results on the other as you go. Not only does it save time, but it's a great back-up in case one of the 64s crashes. And if you haven't got two 64s, there's ordinary old *Turbo Assembler*, a snip at £5.99.

CF25 (SARACEN PAINT) £2.50

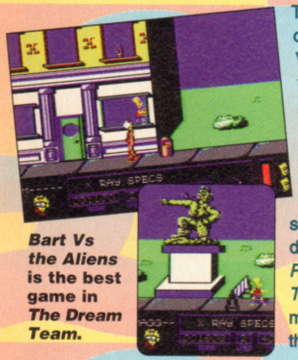
SEE BACK ISSUES ON PAGE 32

Don't forget that every time you order a back issue of *Commodore Format* you also get the free covertape to go with it. And Issue 25 had the great little art package *Saracen Paint*. But there aren't many copies left now, so if you want one you'd better get your skates on.

DREAM TEAM £6.99 (DISK)

WIZARD GAMES ☎ 0723 376586

This excellent disk compilation is great VFM (as *The Sun* would say), mainly because of *The Simpsons*. But *WWF* is one of the better beat-'em-ups (and miles better than its sequel, the incredibly dull *European Rampage*) and *Terminator 2* has its moments. More than the sum of its parts.

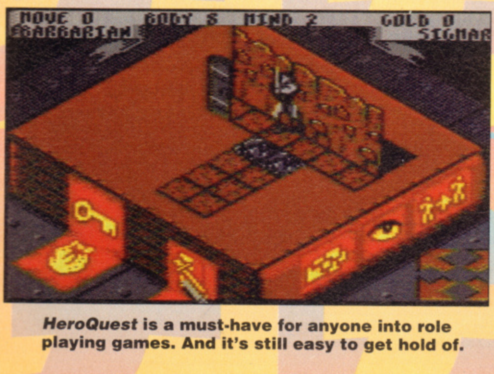


***Bart Vs the Aliens* is the best game in *The Dream Team*.**

HERO QUEST £3.50

WIZARD GAMES ☎ 0723 376586

If you like RPGs and you haven't got this game, something has gone seriously wrong with the great scheme of things. So get hold of this superb sword and sorcery caper now before the universal balance is irreparably damaged.

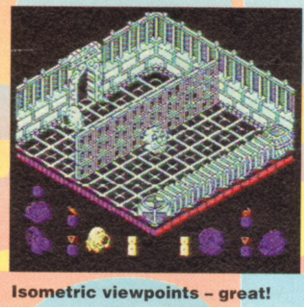


***HeroQuest* is a must-have for anyone into role playing games. And it's still easy to get hold of.**

HEAD OVER HEELS £3.45

ULTRA SOFTWARE ☎ 0295 730060

Probably the best isometric 3D game ever on the C64. And it's a downright weird game in which you have to swap control regularly from one of the canine stars to the other. Oh yeah, and it's pretty huge as well.



Isometric viewpoints – great!

QUICKSHOT PYTHON JOYSTICK £9.99

QUICKSHOT ☎ 0279 600204

I'm surprised no-one else has recommended a joystick in this feature. A decent joystick is essential to precision gaming. And the beauty of the Quickshot Python is that apart from being a darned comfy 'stick, it's also cheap enough to let me buy a few more games with my £64.

BIG BOX 2
ANOTHER 30 AMAZING GAMES IN ONE BIG BOX

You can't get much more of a bargain than this.

BIG BOX 2 £9.99

WIZARD GAMES ☎ 0723 376586

Who could resist a bargain like this? I certainly can't. Thirty games for a tenner – that's a mere 33p a game. And some of them are even good – *Zoids, Barbarian 2, Cauldron 2, Lords of Midnight*... the list goes on. It's a multi-corker if ever there was.

MICROPROSE SOCCER £3.95

EVERGLADE ☎ 0463 240168

I know Ollie has recommended *Liverpool*, and that's a pretty good soccer sim, but this is without doubt the best on the C64. And it's cheaper. So unless you're a rabid Liverpool fan, I reckon you should go for this corker of a game.

Searing soccer action.

MINI OFFICE £2.99

WIZARD GAMES ☎ 0723 376586

Okay, it's a shame *Mini Office 2* is hard to get hold of these days – if you see it, get it. In the meantime, I'm quite happy to recommend the original. It's not as good as its successor, sure, but it's generally available and dead cheap. So if you want a good basic suite of business software, *Mini Office* is a good bet.

NEVER MIND THE QUALITY...

Right, if it's sheer volume of games your after, let's see how many we can get for our £64. Disregarding PD, here are some of the best bargains we could find (all titles are on cassette unless otherwise indicated)...

	Number of games	Price
Wizard are offering a choice of three sports sims from a selection of 20 for just £5	3	£5.00
Wizard are offering any two *Dizzy* games for £5	2	£5.00
Take your chance – pay Wizard £6 and they send you 10 games... of their choice!	10	£6.00
The Big Box, cassette or disk (Wizard Games)	30	£5.99
The Collection (Wizard Games)	30	£6.99
Soccer Double Volumes 1 and 2 (Ultra Software)	4	£3.45
Best of Elite Volumes 1 and 2	8	£5.90
Multiplex (0243 587089) do a deal where you can buy 13 games (from a pretty motley selection) for £9.99	13	£9.99
10 Great Games (Wizard)	10	£3.99
Classic Arcadia (Wizard)	6	£2.99
Kids' Packs (Wizard)	6	£5.99
A couple of other games from Multiplex at 99p each	2	£1.98
TOTALS	**124**	**£63.27**

10 5.25-INCH DISKS £4.95

ULTRA SOFTWARE ☎ 0295 730060

50p a disk? Can't be bad. Anyway, I'll need some disks with all that assembling I'll be doing. And it nicely finishes up my £64. Almost.

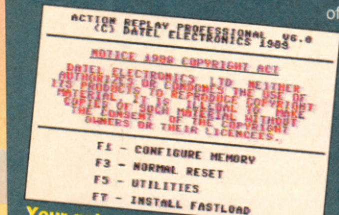
TOTAL: £63.30

DAVE GOLDER
CF EDITOR

ACTION REPLAY £24.99

DATEL ☎ 0782 744707

Probably the fourth most essential piece of hardware for any C64 owner (after the C64, the monitor and a datassette or disk drive, of course). How can you live without one? Apart from it's poking abilities so that you can romp through games with infinite lives/weapons/energy/cat food or whatever, it also provides loads of programming utilities. Believe me, you want one. You need one.



```
ACTION REPLAY PROFESSIONAL  V6.0
  (C) DATEL ELECTRONICS 1989

  NOTICE 1988 COPYRIGHT ACT
  DATEL ELECTRONICS LTD NEITHER
AUTHORIZES OR CONDONES THE USE OF
ITS PRODUCTS TO REPRODUCE COPYRIGHT
MATERIAL. IT IS ILLEGAL TO MAKE
COPIES OF SUCH MATERIAL WITHOUT
THE CONSENT OF THE COPYRIGHT
  OWNERS OR THEIR LICENCEES.

      F1 - CONFIGURE MEMORY
      F3 - NORMAL RESET
      F5 - UTILITIES
      F7 - INSTALL FASTLOAD
```

Your gateway to infinite lives, energy, power, corruption...

MAYHEM £8.99

APEX COMPUTER PRODUCTIONS LTD, PO BOX 100, SOUTH OCKENDEN, ESSEX, RM15 5HD.

Okay, I'll come clean, all four of us would have bought this with our £64. But I'm the editor, so I get first choice. Hah. This is, quite simply, the best C64 game ever, and is a darned sight better than a load of those characterless console platformers. Get it.

You knew someone was going to choose it.

RAINBOW ISLANDS £3.75

WIZARD ☎ 0723 376586

From the latest platformer sensation to one of the earliest. *Rainbow Islands* was probably the game that popularised the cute platformer, but the thing that still makes it stand out is its unique gimmick – the rainbow gun. There's never been anything quite like it since.

Still a brilliant game.

RICK DANGEROUS 2 £3.95

EVERGLADE ☎ 0463 240168

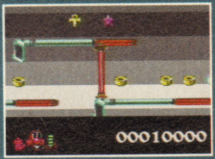
I love *Rick Dangerous*, and would, in truth, have bought both *Rick 1 and Rick 2* if given £64 to spend on any C64 goodies I liked. But in the interests of variety, I decided to stick with *Rick 2* – arcade adventure action at its best (*Rick 1* being a very close second best).

Rick Dangerous 2 – who says that sequels are never as good as the originals? No me.

ROBOCOD £3.95

EVERGLADE ☎ 0463 240168

The aquatic adventures of the biomechanoid scaly hero are not to everybody's taste, but I loved the game, and that's why it's in this list (that and the fact that you can still get hold of it new). Fast-paced, colourful and packed with gimmicks.



The Slippery super spy with stretchy bits.

RODLAND £3.45

ULTRA SOFTWARE ☎ 0295 730060

Oh, yeah, I know. Another platformer. But I can rely on the others to balance up my bias. And anyway, *Rodland* is another classic which, along with *Bubble Bobble*, practically invented every cliché in the platform genre.

Who needs guns when you can beat your enemies with big sticks?

ST DRAGON £3.95

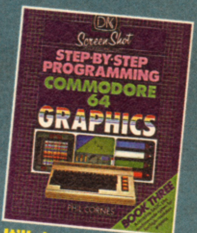
EVERGLADE ☎ 0463 240168

Who can resist a classic shoot-'em-up action at a price like this? I certainly can't. And since you can still get *St Dragon* from Everglade, I'll spend £3.95 on that.

STEP-BY-STEP GUIDE TO PROGRAMMING £6.95

COMPUTER MANUALS ☎ 021 706 6000

Definitely one of the the easiest-to-understand books on C64 programming ever written. What it lacks in comprehensiveness, it more than makes up for in comprehensibility. Unlike that last sentence. But it's a great intro to the subject for brainless gonks like me.

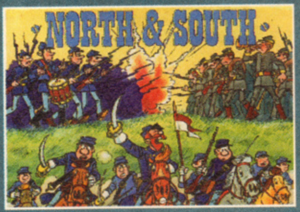


It'll do Jason Finch out of a job.

NORTH AND SOUTH £3.99

WIZARD GAMES ☎ 0723 376586

The kind of strategic wargame that appeals to people who don't even like strategic wargames. Relive the American Civil war for under a fiver.



Why would anyone ever want to play the South in this game?

TOTAL: £63.97

AN ENDLESS SUPPLY

...And then there's always PD. In theory, PD is free so can get infinite games for £64. But there are postage and duplication costs, so that doesn't quite count. Anyway, PD complicates matters, so we decided to concentrate purely on new, commercial games for this feature, because then there is a direct parallel with the consoles. However, this does emphasis the point that the consoles don't have anything to compete with PD – their loss. And to hammer this point home, next month we'll be presenting a Top 20 PD games.

PETE DENNIS, CF READER, READING

COMMODORE FORMAT £2.95

YOUR LOCAL NEWSAGENT

COMMODORE FORMAT
CHECK THIS OUT
BLITZKRIEG

Okay, so I'm being a bit of a creep. But I would never miss a copy of *CF*. It has always, and still is, an essential source of all the latest C64 information.

DATEL MIDI 64 INTERFACE £39.99

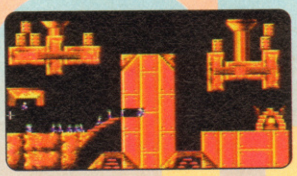
DATEL ☎ 0782 744707

I'm into music, and this gadget, which comes with *The Advanced Music System*, a decent enough MIDI music package, gives me the ability to control MIDI instruments from my C64. It's a bit specialist, sure, but for anyone who likes creating music, it's a must.

LEMMINGS £10.99

WIZARD ☎ 0723 376586

This game was a smash on all formats, and our C64 version is well up there with the best of the versions. It's a great puzzler, and a truly original game.



Lemmings – the game with more "just one more go" factor than any other.

BUBBLE BOBBLE £3.75

WIZARD ☎ 0723 376586

Along with *Rodland*, this virtually invented every cliché in the platformer genre (er, Dave forced me to say that, by the way).

BUBBLE BOBBLE

The game that introduced Bub and Bob to the world.

F15 STRIKE EAGLE £3.45

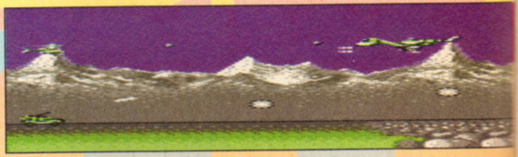
ULTRA SOFTWARE ☎ 0295 730060

Flight sims are an acquired taste, but it's one my tongue's got used to, so I'll be happy to lick this game (*blimey, talk about mixed metaphors – Dave*). Just the right side of complex to make it challenging without becoming frustrating.

SILKWORM £2.50

WIZARD ☎ 0723 376586

When you've only got a couple of quid left you can always rely on a good old-fashioned shoot-'em-up. Which is what Silkworm happens to be. It's not all that fast, but it's visually impressive and constantly engrossing.



Silkworm – a poncey name for a hard game.

TOTAL: £63.63

MAKING 10TH DAN

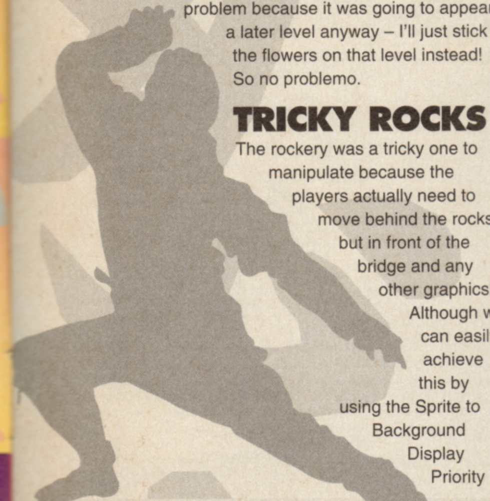
Jon Wells continues to recount the trials and tribulations of trying to bring 10th Dan to your C64 monitor screens...

DIARY OF A GAME: MONTH SIX

Some completely bizarre things have been happening this month, but more about that later. In the meantime, I've been busy finishing off the concluding landscape for level one, parts of which we saw last month. The main landscape for this level now features all of the skyline graphics, including clouds and fainter mountains, to give it more distance. The lower part features a purple rockery (okay, it's a bit odd), instead of the plants 'n' stuff that I was originally going to include. Once the distant mountain and cloud data was finished, there were only 28 characters left to do the big plants, bushes and fences with! Not much memory, eh? That's why I did the rockery, though it wasn't much of a problem because it was going to appear in a later level anyway – I'll just stick the flowers on that level instead! So no problemo.

THE STORY SO FAR...

Jon Wells, the man who basically is Visualize Software, has spent the last half year working on the game he intends to make the best C64 beat-'em-up ever. And he reckons it'll challenge a lot of console beat-'em-ups in terms in playability as well. So far the graphics for the first level are complete, the map editor is in place and now he's started on the actual fighting routines...

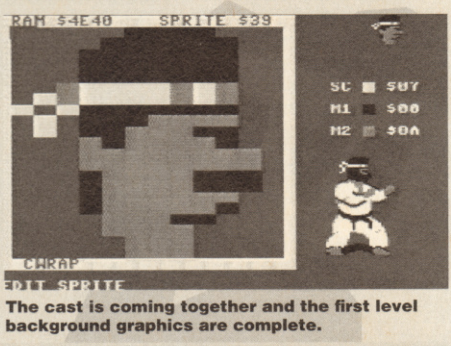


TRICKY ROCKS

The rockery was a tricky one to manipulate because the players actually need to move behind the rocks, but in front of the bridge and any other graphics! Although we can easily achieve this by using the Sprite to Background Display Priority pointer at $D01B/53275, there's a problem! YES, there always a problem.

Your sprites can only move behind the Changeable and Multicolour Two colours (see the Colour Mixing feature on page 26), and the rockery needs to be three colours! The sprites always move in front of the main Background colour and Multicolour One, no matter what you select on the priority pointer.

"So that's it then?" you might think. Not quite! Y'see if you take a little look at the screen shots, you'll notice that the rockery is in fact three colours... (*No you won't, we're on a mono page – you'll just have to take our word for it – Dave*). They comprise a black outline, along with the dark blue and purple, yet still the fighters can move behind them and be hidden completely! You see, although we see three colours I'm still only using two pointers. The black and purple are, in fact, both the changeable colour, while the blue is Multicolour Two, and the graphics were developed in such a way, that the black and purple colours would never be in the same character at the same time. Yup, that's how it was done chums... (*er, I'm glad I read the colour mixing feature first – Dave*).



The cast is coming together and the first level background graphics are complete.

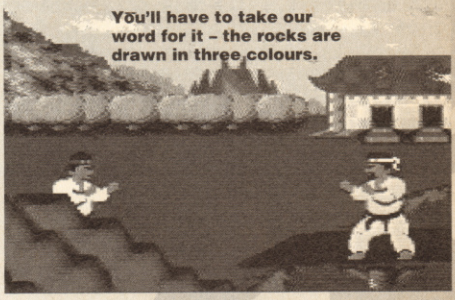
THE CAST

I've drawn some more opponents heads, loadsa heads, in fact. The finished product will only feature about four to eight opponents in memory at once, but you'll be able to choose these four to eight from around 30 different opponents before the main game loads. This actual number mainly depends on how many different-looking opponents I can draw. You get a look at the entire cast of opponents to date in next month's diary.

Although I've partly developed most of level two using level one graphics (y'see there are going to be six levels with three graphic styles), the emphasis now is to get the complete control system and fighter graphics sorted, before I do anything else. This means that the later levels will have to wait.

Before I do anything, I need to decide in what format these animation graphics are to be crunched so that I can test out my routines. There are five different ways ie, character to sprite, single sprite, sprite vertical strip, sprite horizontal strip or linked Sprite... phew!

Though I have as yet to decide (decisions, decisions), the best way is to test the routines and choose the least raster-time eater (*tut, even I worked* that *out – Ed*). At first I tested the single Sprite format, as it's the easiest to do; this can handle six sprites, flipped either way in about 160 rasterlines, which is a bit steep, though I could decrease it to about 100 by making the routine bigger, which uses less compare-and-store cycles. A cycle is the time taken to operate a machine coded command, so the more cycles used the longer the rastertime. Hmmm... that side of the coding needs to be more heavily researched, thought out and tested. Oooer, sounds like hard work! There's something else I've got to do before all that after all – program the *10th Dan Sprite* editor!



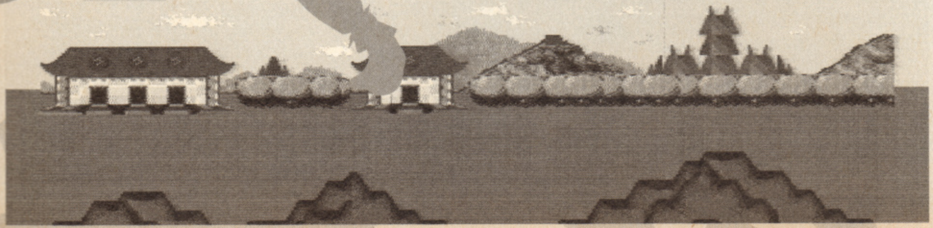
You'll have to take our word for it – the rocks are drawn in three colours.

Actually that's the main thing I'll be doing in part seven. Hopefully, I'll also be able to give you more information about how and which cruncher will be used. See you in 30 days.

KENZ IS BACK

Well now for a bit of bizarre happenings. Think back to last month's diary when I mentioned that Paul, better know as the FeekZoid, had disappeared for good! Well, he's returned! There was poor old Kenz, just boldly going to answer a knock on his office door when it was smashed down by an enraged FeekZoid, wildly waving last month's issue of *Commodore Format*.

After a few moments Kenz managed to scramble out from underneath the door, only to be confronted by the still angry FeekZoid, demanding, "What the 'ell is all this about!". Well, FeeKZoid is back and he'll be dealing out the music for *10th Dan* and *Germ Alert*, as well as our future projects. Which is excellent



PD FORMAT

Free entertainment? Well, you could go down to the Barrow-In Furness bandstand and listen to brass versions of Kylie's greatest hits, or you could load up a demo. If the demos seem preferable Andy Roberts might be able to steer you in the right direction...

SPASMOLYTIC

(CENSOR)

This is the latest release from the world-renowned Censor group which boasts several new techniques that the demo's creators are obviously keen to show off. The intro features a superb colour-cycling scrolling message, but the second part is by far the most innovative – a stunning ray-traced animation, which moves and changes colour in time to the music (which, incidentally, is the awesome main theme from TERRA CRESTA by Martin Galway).

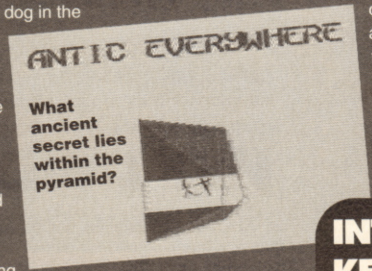
Part three features some amazing sampled riffs, along with complementary effects, flashes and strobes. Although they are quite clear and crisp, the samples do tend to hiss a little, so keep the volume down unless you want to attract every dog in the neighbourhood.

The fourth part is by far the longest, and combines all the effects from the previous demo sections (colour cycling, strobing and sampled music).

The final part is very original, featuring several different Mandelbrot pictures which are displayed and then colour-cycled, amid a variety of plasma effects.

Spasmolytic – an unusual name, an unusual demo, but a disappointing release for a group with Censor's extraordinary track record. The programming is slick, but it falls way behind their previous releases in terms of quality and enjoyability.

75%



What ancient secret lies within the pyramid?

IMAGINATION

This section of the beyond demo demonstrates what it's like having vertigo on The Seers tower.

BEYOND IMAGINATION 2

(ANTIC)

This is one of a new breed of megademos, in that the whole thing is self-running. Obviously you need to load it up initially, but then you can kick back and relax while the demo plays each part (and loads in the next). On the downside, you have to sit through the whole demo – and that includes the boring bits too. You can have your cake and eat it – with all those horrible bits of peel and rind you'd normally take out.

This demo kicks off with a very original intro, emulating the start-up screen from a 386 PC, and even the Guru Meditation error message from the Amiga 500. After a tedious list of credits (accompanied by a rather nifty pixel tunnel) comes a stunning animated sequence. This was featured on Power Pack 47, and is quite an amazing piece of animation, especially if the lights are dimmed.

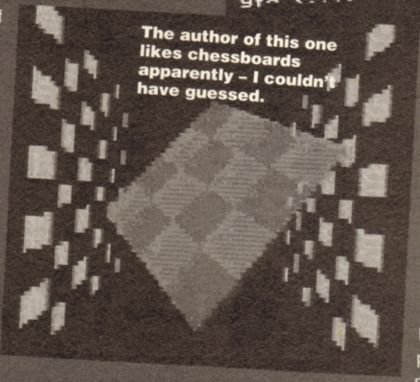
Next comes a vector graphic pyramid which rotates smoothly and effortlessly, then the programmer introduces an X-RAY effect allowing us to see inside the pyramid. Quite superb.

After this comes the ubiquitous greetings section – which is slightly more readable than most if you're interested – along with some spinning and rotating chessboards for added sparkle. The next section features a rotating city scape, and is yet another example of the stunning animation effects possible on the C64.

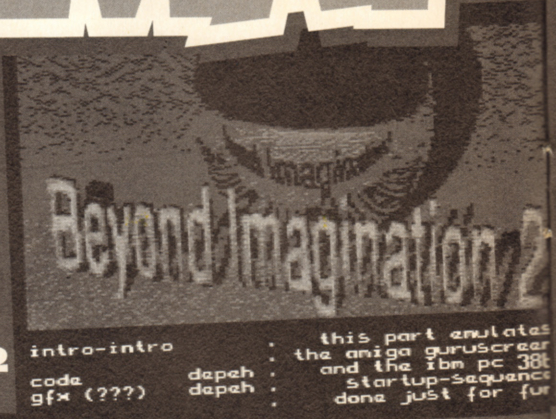
The final part features a girl in a swimsuit (for no apparent reason), before the main ray-traced picture and credits appear.

Although *Beyond Imagination 2* lacks the sparkle and professionalism of some megademos, it has several interesting and innovative sections, and is sure to set more than a few trends within the demo community.

80%



The author of this one likes chessboards apparently – I couldn't have guessed.



```
intro-intro              :   this part emulates
                         : the amiga guruscree
code          depeh      :   and the ibm pc 38
gfx (???)     depeh      :     startup-sequenc
                         :    done just for fu
```

This screenshot's from... ah, can't quite remember... it's on the tip of my mind...

INTRODUCING KEV'N'DAVE

Another month, and another new PD library. KDPD (Kevin & David's Public Domain) is based in sunny Scotland and run by Kevin Wilson, his aim being to provide quality PD software on tape and disk (in much the same way as every other library). Anyway, if you'd like more information, send an SAE to their address listed in the PD Format directory.

DIGITAL MESSIAH

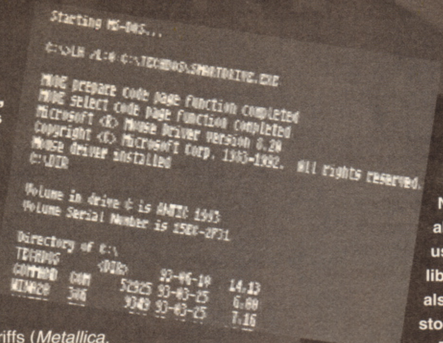
(MEGASTYLE)

This particular demo took over a year to create, and is the final Megastyle production for the C64. If you're obsessed with demons, graveyards and heavy metal, then this demo will be right up your street.

A movie-esque intro sets the mood perfectly, as a man recites from an ancient scroll and morphs into a demon, amid frenzied bursts of lightning and thunderous sound effects. The credits section comes next, and features the names of each Megastyle member carved on gravestones... imagination or premonition?

More dark and sinister sound effects accompany the next picture of a demon hunched over a gravestone. If this demo was a person, it would wear black, listen to

From *Beyond...* and *CF* Power Pack 47.



```
Starting MS-DOS...

C:\>LH /L:0 C:\TECHDOS\SMARTDRIVE.EXE

MODE prepare code page function completed
MODE select code page function completed
Microsoft (R) Mouse Driver Version 8.20
Copyright (C) Microsoft Corp. 1983-1992. All rights reserved.
Mouse driver installed
C:\DIR

Volume in drive C is ANTIC 1993
Volume Serial Number is 15E0-2F31

Directory of C:\
TECHDOS        <DIR>
COMMAND  COM          93-06-19   14:13
WINA20   386    52925 93-03-25    6:00
                 9349 93-03-25    7:16
```

***Beyond:* Oh no, your C64 has been invaded by the dreaded DOS.**

Metallica and think *The Crow* is a great cinematic masterpiece!

The next section features some sampled heavy metal riffs (*Metallica, probably – Ed*), along with a myriad of flashing symbols and creatures, which are supposedly the five main phobias. After this comes another movie-inspired sequence, with possible racial overtones – a man sees a burning cross from his window, and joins up with several men in hoods to worship the Grand Master who is standing in the flames. The letters K, K and K (not to mention, V, E, R, Y, B, A, D, T, A, S, T and E) spring instantly to mind.

Fortunately, the next sequence in the demo shows a little less tactlessness on the part of the designers (*well, it would be difficult to show more tactlessness – Dave*). To another sampled heavy metal riff we are treated to images of money, power and wealth, while a hand points to writing on a blackboard and instructs the poor mortal to work. Amid scenes of falling money and grinding wheels, various corporate logos flash across the screen. If you've ever seen a U2 *Zooropa* video, you'll know the kind of thing to expect.

The final couple of sequences can only be described as bizarre, surreal and downright strange. This display of weirdness concludes with spirits drifting up the screen, ushered by the Grim Reaper himself – I blame it all on Meatloaf videos myself.

The whole demo, which spread across two disk sides, is a dark and mysterious trip into the unknown. It shows imagination and talent, and is certainly not your average run-of-the-mill megademo. If you'd like to try something different, try this. It's a shame about the fascistic elements, though – they almost ruin the whole thing.

90%

PD FORMAT DIRECTORY

New PD libraries seem to be appearing all the time, which makes it difficult for us to recommend any one particular library when we review the software. It's also a little unfair, because most libraries stock all the latest software anyway.

That's where our splendid PD directory comes in to action. If you've never ordered PD software before, write to a few of the libraries listed here (enclosing SAEs) and ask for up-to-date catalogues. Some libraries only stock disk-based software, so it might also be a good idea to specify whether or not you own a disk drive.

Just to make things easier, we now specify whether the companies stock tapes (T) or disks (D) next to the company name. If you run a PD library and can't find your company listed here, write to us at: PD Format, *Commodore Format*, 30 Monmouth Street, Bath Avon BA1 2BW. If you're a programmer or PD library, that's also the address to send your latest software along to.

BINARY ZONE PD/THE GUILD (T/D)
34 Portland Road, Droitwich, Worcestershire WR9 7QW.

ELECTRIC BOYS PD (D)
917B Brighton Road, Purley, Surrey CR8 2BP.

FOX PD (T)
6 Sturton Avenue, Goose Green, Wigan WN3 6SZ.

KDPD (T/D)
9 Failford Place, Kilmarnock, Scotland KA3 1UJ.

KINGSWAY PD (D)
72 Glencoe Road, Sheffield, S2 2SR.

MK PD (D)
1 Westmore Close, Burrows Park, Northam, North
Devon EX39 1SR.

MEGATRONIX PD (T/D)
21 Tiled House Lane, Pensnett, Brierly Hill, West
Midlands DY5 4LG.

SHAREWARE PLUS (D)
Fulfilment Centre, 66 High Street, Pershore,
Worcestershire WR10 1DU

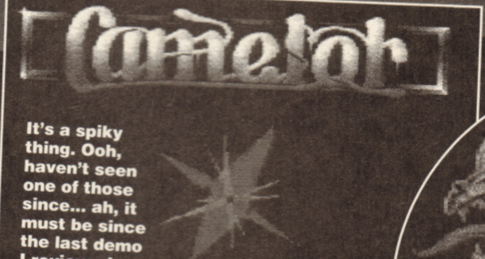
UTOPIA PD (D)
10 Cwmaman Road, Godreaman, Abedare, Mid
Glamorgan, CF44 6DG

NEXT MONTH

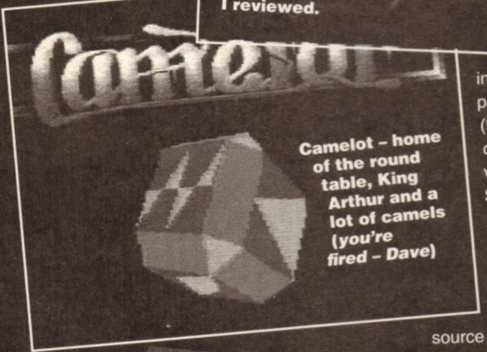
Grab your joystick and prepare for action as we uncover the top 20 PD games of all time. Cheap thrills have never been so good!

TOWER POWER

(CAMELOT)



It's a spiky thing. Ooh, haven't seen one of those since... ah, it must be since the last demo I reviewed.



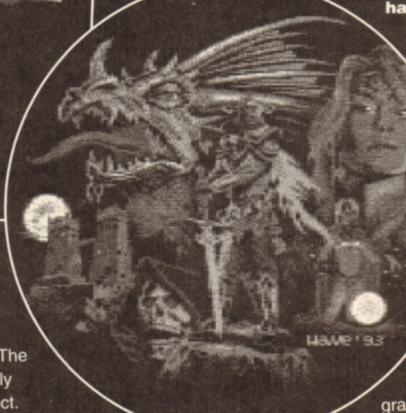
Camelot – home of the round table, King Arthur and a lot of camels (*you're fired – Dave*)

Yet another self-running demo, this time from the legendary Camelot group (who brought us the classic *Ice Cream Castle*). After a series of vector-bobs perform a countdown, the demo begins with a superb medieval title screen, followed by even more vector bobs. The opening music is simply stunning, and is some of the best demo music for quite some while.

The second part features a genuine 3D rotating floor, as seen in *Space Harrier* and *Ballblazer*, and moves around smoothly as the credits are displayed. Next comes an effect previously only encountered in Amiga demos; a swirling mass of pixels twist and rotate to form dozens of intricate patterns (like a computerised version of Spirograph). The result is a truly dazzling effect.

The next part consists of a CML logo, which casts various shadows as a light source moves behind it – very clever indeed. After this comes another display of vector graphics, which even feature translucence and stencil effects (if you've ever seen the classic Amiga demo *Mental Hangover* by Scoopex, you'll know just what to expect).

More fractals appear in the next segment, before you are treated to



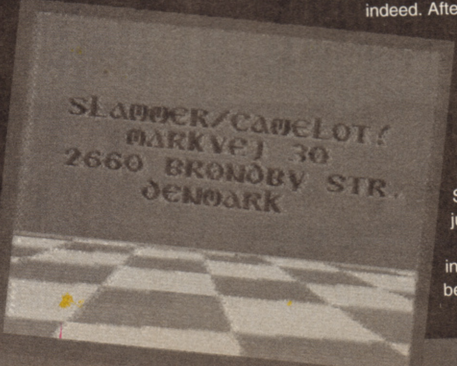
You can send away for this unique, limited edition hand-crafted sword and sorcery plate.

a stunning piece of fantasy artwork (which sets the standard for the rest of the demo). More vector bobs next, this time forming a scrolling message which is literally impossible to read (unless you have a particularly flexible neck). After even more impressive vector graphics (and another beautiful piece of artwork) comes the member screen, which features some stunning morph and dissolve effects. Camelot never seem to do things by halves.

Perhaps the most impressive part of the demo is the vector ball, which has a mere 72 faces – enough to make any self-respecting programmer cry... until it turns translucent. Amazing.

Tower Power is one of the finest demos I have seen in a very long time. The demo parts link together superbly, and the whole experience is exhilarating, absorbing, and technically faultless. If you order the demo, make sure you get hold of the finished product rather than the nearly-finished preview. Miss this and you're missing the demo of the year.

98%



SLAMMER/CAMELOT!
MARKVEJ 30
2660 BRONDBY STR.
DENMARK

More chessboards – it must have something to do with the universal balance between good and evil... or maybe not.

UNCLE DAVE'S BUY-A-RAMA

FOR SALE

FOR SALE

Renegade 3, Streetfighter 2, HeroQuest, AMC, Dragon Ninja, Sly Spy, and billions of other games. All tapes. Complete C64 system, recorder, light gun, and games, etc, for £100 or less. Telephone Alexander Mein 0869 347339.
ATari Lynx with AC adaptor and six games. £45. Phone Robert on 0749 831440.
Issue 11 to 14 of Commodore Force (*boo, hiss – Dave*) plus covertapes. Plus five games. All for £8. Contact Dreshel Villa, Hambrough Lane, Totland Bay, Isle of Wight PO39 0JX.
C64 and C6128 software and hardware disk and tape, for sale. For list send SAE to Mike, 5 Woodside Cottages, Highwood, Chelmsford, Essex CM1 3RD.
Quick data drive, storage facility, un-use. Also saves to and from tape and disk. Excellent programmers tool. £30. Phone 081 571 6183.
C64 1541 disk drive MK1, various disks, joystick, mouse and art disc. £65ono. Telephone 0235 550582 after 5pm.
CDs from 50p. Records from 35p. Tapes from 75p. Games from 50p. For catalogue program send SAE and blank disk/tape to M Raynes, 267 Pelham Road, Immingham, South Humberside, DN40 1JU.
C64 with disk drive, printer, mouse, light gun, joystick, datasette, over 120 games, spare computer, Action Replay cart. VGC. £130. Richard 0264 362802.
C64 cassette software from 50p. Also disks, carts, etc. All boxed originals. SAE for full list to Eddie (C64), 151 Balsusney Road, Kirkaldy, Fife, KY2 5LH.
C64 games for light gun. Six unused games on disk only, £5 ono. Graham Todd, 18 Reedloch Drive, Troon, Ayrshire KA10 6UU.
OCP Art Studio. Disk version. No mouse. Bargain at £10. Phone Mark on 0733 327046 (evenings).
Commodore clear-out. C128, VC64, disk drives, printers, games on disk/tape, copying device, monitor RGB/PAL. For more info tel 0202 745316. Dorset.
Commodore system complete, C64, tape, disk drive, printer, tapes, disks, manuals, all very good condition. £200. Might split. Tel 0202 745316. Dorset.
C64, tape player, 40 tapes, 200 disks, disk drive, printer, joysticks, mice, light gun and more. Perfect for beginner. Phone for details. £200. 0223 832805.
C64, disk drive, data recorder, joystick, light gun, mouse. With Advanced Art Studio. 18 games and manuals. £110ono. Tel 0706 842146.
C64, tape deck, microdrive, light gun, games, carts, over 60 tapes, all leads. A bargain at £150ono. Hugh 0457 870244.
GEOS: complete package. Mouse, all software, disk drive, 50 blank disks, various games and utilities, £120 or will split. Call for info. Paul 0793 782045.
C64 Quick Data drive for sale. Unused. Please ring 0753 824220 and ask for John. It is four times faster than a disk drive.
C64, disks, carts and cassettes, hardware and music CDs, tapes, records. Very cheap. Send SAE to M Raynes, 267 Pelham Road, Immingham, South Humberside DN40 1JU.
Commodore 64 with 1541-II disk drive, joystick, disk storage unit, mouse, mouse mat and holder, plus a range of brilliant disks. All under guarantee. Only £150ono. Boxed GameBoy plus holder and eight top titles. Open to offers. Tel 0435 865046.
C64 games on tape. F15, Acrojet, Flintstones, Yogi's Great Escape. £1.50 each. Also Chiller, 50p, and Biff, £1. Telephone 0452 713593 6pm to 7pm.
Brand new C64 Quick data drive, unused, still boxed with instructions. Excellent programmers' tool. £30. Phone 081 571 6183.
Commodore Format mags and tapes 1 to 53 (*er sorry? We've only got to issue 49 – Dave*). £25ono. Action Replay cart Mk V1 £10ono. Mouse and software £5ono. Tel 0902 304756.
Cheap C64s, datassettes, power supplies, joysticks, games, etc. Any combinations possible. All offers considered. Everything in excellent condition. Phone Richard on 0483 62362.

BARG!

SX-64 FOR SALE with blank discs. Good condition. £150ono for quick sale (*and it's a piece of computing history – Dave*). Phone Tom now on 0237 476663.

11 great games for the C64. Including The Amazing Spiderman and After Burner for the bargain price of £18. So write to Ian Smillie, 8 Syon Lane, Isleworth, Middlesex TW7 5BT.

WANTED

Power supply unit for 1541 Mk II. Also INS for Action Replay Mk III. Tel Mike 0245 248265. Essex.
Could anyone please either provide me with clues or solutions to the following games: The Quest (part of Commodore Compilation disk; text only, this game was part of a package with the disk drive 1982); Starship Andromeda (disk), Lord of the Rings Part One (tape). Kevin Jones, 24 East King Street, Helesburgh, Dunbartonshire, Scotland G84 7QP.
Unhappy boy asks for any spare C64C keyboard, C128 keyboard, power supplies, disk drives and games. Free or under £5. Send to 29 Binyon Crescent, Stanmore, Middlesex HA7 3ND (*address it to Mr hopeful, I would – Dave*).
Wanted: C64 Space Gun, preferably cart. Will pay up to £6. Call Mark on 0908 674660 (*or it might be 0908 614660 – you should see his writing – Dave*).
1541 disk drive, swap for new 3.5 1.44Mb drive and multi I/O card. Make up asking price in cash. Phone Jon on 021 427 3930.
3D Construction Kit £3. Speed Ball 2 £2. Also I want a C64 mouse and mat for £8. And issue 12 of Commodore Format. Phone James on 0353 722426.
GEOS suite or parts. Also Trilogic cart, sound sampler, eg, Datel. I'll swap (SAE please) or pay cash. Please help a serious 64er. 021 373 7504.
Rim Runner and Roland's Rat Race wanted. Also any old software (tape/disk) plus Action Replay and Zzap64 issue 27, 34, 66-78, 82, 83 and 85 onwards. 0222 599733.
Printer for C64 preferably colour with manual. Please write to Jan Bowen, 52 Preston Avenue, Wymouth, Norfolk, NR18 9JE.
Disk contacts wanted, C64/128, over 700 games, demos, utilities to swap, including Gianna Sisters, Kick Start 128. Write to Jase, 19 Haslemere Gardens, Hayling Island, Hants, PO11 9SD or phone 0705 464949, fax 0705 465565.
Software wanted for new PD group. Catalogues can be ordered from the same address. Please send an SAE to: Graham Pinnock, Dynamic PD, 10 Roseberry Road, Norwich, Norfolk, NR3 3NA.
C64 disk drive needed. Will pay any reasonable price. Must have instructions. Write to G Sutton, Tigh-na-Sith, Main Street, Guildtown, Perthshire PH2 6BS.
Wanted urgently. 1541 Mk2 disk drive and any disks will be appreciated for C64. Will pay reasonable price. Phone Andy on 0772 258012.
A copy of Elite or Supreme Challenge. Must have instruction. Does not have to be boxed. Will pay good money. Phone 0628 669724.
Wanted: Fox PD/Binary Zone utilities tapes 1 and 2. Will swap Binary games for tape 1 and pay £1.50 for tape 2. It is legal to copy PD. Tel 0821 650409.
Wanted: Action Replay. Must work. Will swap for a Simon's Basic cart with no box/instructions but works. If you can help phone 0533 543636. Between 4-5pm.
Wanted: TV Sports Football (available on disk only) by Mirrorsoft. Will pay full price for genuine copy. Please tel Dean 0386 761231.
Hobbit (disk), LCP (disk), Kayleth, Great Gianna Sisters, Salamander (disk), Knightyme, Stormbringer, Sabrewulf, Tir-na-Nog, Mario Bros, Terrormolinos, Cybernoid 2, Renegade 3 (disk). Write to me at 81 Norway Road, Putney, London SW15 1PH.
Urgently wanted: 1541 Mk2 disk drive. Will pay postage. Call Paul Hitz at 010 353 21 292491 or write to 2 Cherry Drive, Cross Douglas Road, Cork, Eire.
Wanted: RPG's, C64 disks, boxed with instruction, Bard's Tale, Ultima, etc. Clue books if possible. Write to Phil Duncan, 6 Oakapple House, Maidstone, Kent ME16 9NU.
Wanted: Exile, Alter Ego, Dragon wars, LCP, Alien Storm, Pirates, GAC, any strategy, on disk. Write to 24 Avenue Parade, Accrington, Lancashire BB5 6PJ.
Wanted: C64 DTP software. Cassette or disk. Please ring 071 251 4196 or write to me at 8b Peabody Estate, Farringdon lane, London EC1R 3BA.
Does anyone have Locomotion by Kingsoft, tape or disk? (*I'm sure somebody does – why, do you want it? – Dave*).Andy Thom, 15 Keene Road, South Lynn, King's Lynn, Norfolk PE30 5BT.
Urgent: searched everywhere for Multi-Player Soccer Manager. If anyone has it I'll buy it! Locally to Feltham. Call Dave on 081 384 7568. Urgent.
Disk drive wanted. 5.25-inch if possible. Plus some disks at a low price. Contact Simon Lamb, 13 Victoria Road, Gourock, Scotland, PA19 1LD. 0475 638885.
Commodore C16 and Plus 4 software wanted on tape or disk. Anything considered. Also wanted Pause Plus by Anco. Ring Peter on 0444 440647.
Adventures on tape and disk. Please send lists to Dave the Sprite. Also needed, back issue of CF37. 23 Athenaeum Street, Plymouth, Devon PL1 2RH.

PEN PAL

14 YEAR OLD BOY is looking for a beautiful girl 14-15. Doesn't have to be interested in computers. All letters will receive a reply. Photo if possible. Haydn Picton, 27 Park Street, Pembroke Dock, Dyfed, Wales.

Microsounds Digital Music system with four octave keyboard or Microvax sampler (Supersoft) plus Pro-cartridge. Must be very cheap. Write to Mike, 14 Borough Place, Church Street, Whitby, YO22 4BJ.
Wanted: an Amiga 600, a mouse, a joystick, transformer. No games. Prices please. Phone Richard on 021 550 2788.
Wanted: Project Stealth Fighter (Microprose) on Kixx label. Cassette only. Local to Reading. Please phone Martyn on 0734862355.
Zoids, Action Force and Judge Dread wanted. Tape only. Pay £5. Complete. Tel Luke on 0882 484910 Mon to Sat from 7.30pm.
Has anyone got Alter Ego or Laurel and Hardy on cassette or disk? Then please contact Matthew Withers, 209 Ruskin Road, Crewe, Cheshire CW2 7JY.

SERVICES

C64 Mini Office 2 on tape. Or any suitable word processing software for use with MPS1230 printer (*er, surely any word processor would work with any printer – Dave*). Must be on tape with instructions. Telephone 0932 848747.
Bloodwych. People wanted to exchange tips and maps for Bloodwych. I have mapped up to level six. Anyone need help, just write to Diarmuid Quirke, 52 Meadow Park Lawn, Ballyvolane, Cork Ireland.

USER GROUPS

Partner needed to set up a C128/64 user group. Must have a printer, C128 and fairly good English skills. Do you fit the description? The write to Simon Nigland, 1 Primrose Close, Calne, Wiltshire, SN11 4QF.
SEUCKERS. Now over 200 games. SEUCKERS, the best for friendship and new SEUCK games. SAE to SEUCKERS, 12 Arthur Avenue, Caister on Sea, Great Yarmouth, Norfolk NR30 5PQ.

BUY-A-RAMA ORDER FORM

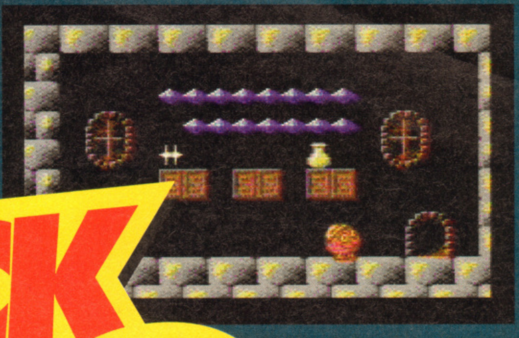
NAME

ADDRESS

Classification: Tick box; ☐ For sale ☐ Wanted ☐ Services ☐ User groups ☐ Pen pals

BUYING? SELLING? DOING SOMETHING ELSE THAT THE C64 WORLD SHOULD KNOW ABOUT? THEN CF IS THE PLACE TO ADVERTISE...
And it's as easy as filling in this 'ere form and sending it to us here at Uncle Dave's Buy-A-Drama, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW. And it's free! But that doesn't mean you can take liberties. It's one word to a box in the grid. Cram in more and your ad will be heading binwards.

We're not sure what's so interesting about Fred's back, but it must be worth investigating if this is the third game that's been made about it. We sent in our vertebrae specialist, Dave...



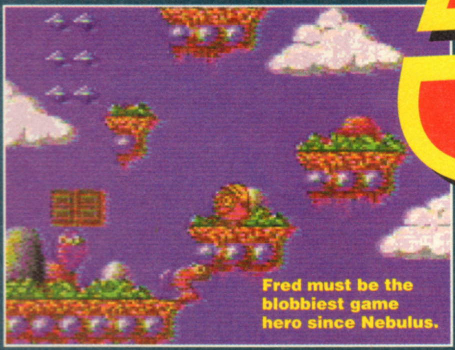
The double star will give you firepower, while the bottle contains energy.

FRED'S BACK 3

Let's not beat around the bush – if Fred wore a red cap and grew a ridiculous moustache he couldn't be much more like Mario than he already is. In fact, wearing a moustache and red cap would be a distinct improvement because Fred is without doubt one of the most hideously ugly game characters ever. But then, I don't suppose Fred wants a visit from Nintendo's lawyers.

Fred's Back 3 is another one of those German games that the Electric Boys will be releasing some time in the very near future (contracts have been signed, but you know how it is with this international wheeler dealin'). And it's definitely one of the better games that's making it our way across the channel. Okay, it owes a debt about the size of the US trade deficit to *Mario*, but there's no denying it's an immensely playable romp.

Luckily for you, I haven't got a clue what the plot is, so you don't have to sit through a couple of paragraphs of pseudo-fantasy, cutesy-wootsy nonsense. Suffice to say, it's set in a colourful world of floating platforms, secret rooms, collectable fruit and exceptionally dim nasties and that Fred's aim is to get from one end of a level to the other in one piece, collecting all the crystals along the way.



Fred must be the blobbiest game hero since Nebulus.

Fred's weaponless to begin with, and can't even nobble his enemies by bouncing on their bonces (phew, so he's not a carbon copy of Mario, then; that'll keep Nintendo's lawyers away). But firepower is waiting to be discovered. All you have to do is bounce under the suspended platforms to knock the bonuses hidden inside out into the open. It's then just a case of nipping up to the top of the platforms to collect the things – but you can bet there'll be some blobby nasties around trying to make this apparently easy task a darned sight more tricky.

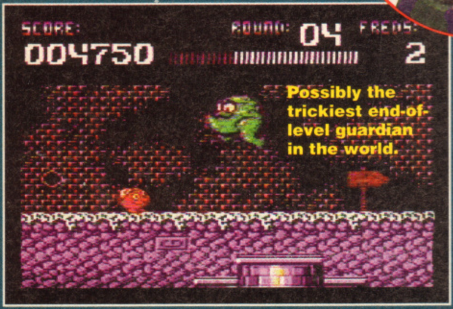
Also dotted around the levels are various trampolines, uplifting gusts of air, extra energy potions and other platform game clichés. It might not sound that exciting or original, but believe me, the elements have been combined in style. The fact that the graphics are excellent, the general quality of coding is extremely impressive and the controls are extremely responsive also helps.

But it's not all good news. The gameplay is relentlessly stuck in a rut; it never develops much beyond what it presents you with on the first couple of levels, and there are few surprises. At times its slavish adherence to over-familiar gimmicks makes your subconscious cry out for it to come up with a gimmick of its own. The other main problem is far less pragmatic – the first guardian is far too difficult to tackle, mainly because there seems to be little pattern to his attack. After about the twentieth attempt to get past him, you wonder if it's worth the bother (and resort to a poke like I did).

Fred's Back 3 is great, so long as you haven't played too many platformers before (in which case it's merely pretty good). The initial hit is impressive because the game looks so lush and plays so fluently. But as the levels progress it loses its way a bit. It's never less than enjoyable, but it's not the sort of game you'll resent being dragged away from. **Dave**

THE STEM INTERVIEW: FIELD MARSHAL 'CLETHY' BUMPWORTHY

Once more Captain Stem hurtles headlong through the sewage outlets of time to interview experts form history, to get their views on the games we review. This time we needed an expert on Freds... er, but we couldn't think of any. The we thought about getting an expert on backs, so Stem contacted a few army generals who had fought Italian forces. He got this comment from one Field Marshal Alastair Monty-Montgommery 'Clethy' Cletherington-Bumpworthy in 1917: "Chap's got round shoulders. He'll never do."



Possibly the trickiest end-of-level guardian in the world.

SCORE: 003670
ROUND: 03
FREDS: 1

It's always puzzled me how these kind of platforms remain suspended in air.

SCORE: 001530
ROUND: 02
FREDS: 0

Perhaps the people who constructed them discovered the secret of anti-gravity.

SCORE: 000340
ROUND: 01
FREDS: 2

Or maybe this is just a fantasy game and anything goes. It seems more than likely.

FRED'S BACK 3

- ▲ **The graphics are immensely impressive.**
- ▲ **Loads of bonuses and power-ups.**
- ▲ **Fast-paced and action-packed.**
- ▼ **Loses out badly in the originality stakes.**
- ▼ **The gameplay doesn't develop much.**

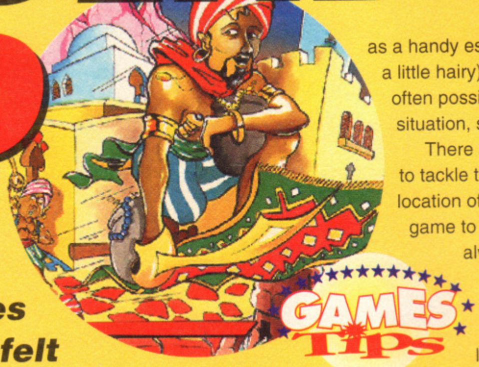
POWER RATING

82%

GAMEBUSTERS

Is it ethical? Is it morally correct? Is it a symptom of a decadent society? Is Andy Roberts a threat to civilisation, undermining modern society by encouraging people to cheat? Maybe. Maybe not.

THE LEGEND OF SINBAD



Escaping from the clutches of the really evil Sultan Salabim is one of the toughest Power Pack challenges in a long time. In fact, because we felt so guilty after giving the game away, we just had to get Andy to produce a players' guide...

LEVEL 1: THE DUNGEONS (NO PASSWORD)

The aim of this level is to locate the two keys and open the two doors which stand between Sinbad and freedom (in the metaphorical sense, of course). However, there are several problems to overcome. First, each of the two keys is protected by a force field, which can only be disabled once our hero has collected eight items of treasure. Second, Sinbad can only carry one key at a time, which means lots of walking backwards and forwards along the hazardous route.

The enemies are the biggest problem, appearing regularly from the blue U-shaped doorways. The snakes move very slowly and deliberately, making them fairly easy targets. The guards aren't much faster, but can still cause many problems. The birds, however, are big trouble, and move around the level with frightening speed.

Remember that there is always a maximum of seven enemies on-screen at any time (and if you've ever read any of our features on sprites you'll know why), although more will appear if any are shot or leave the immediate vicinity.

Sinbad, thankfully, is equipped with (admittedly limited) firepower, which will obliterate any opponent on contact. The problem is that these bullets can only move horizontally, so be careful not to get trapped in any 'vertical' dead-ends.

The mini teleporters dotted around the level are an integral part of the maze structure, but can also act as a handy escape route (should the action get a little hairy). This works both ways too – it's often possible to teleport into a dangerous situation, so take care and be cautious.

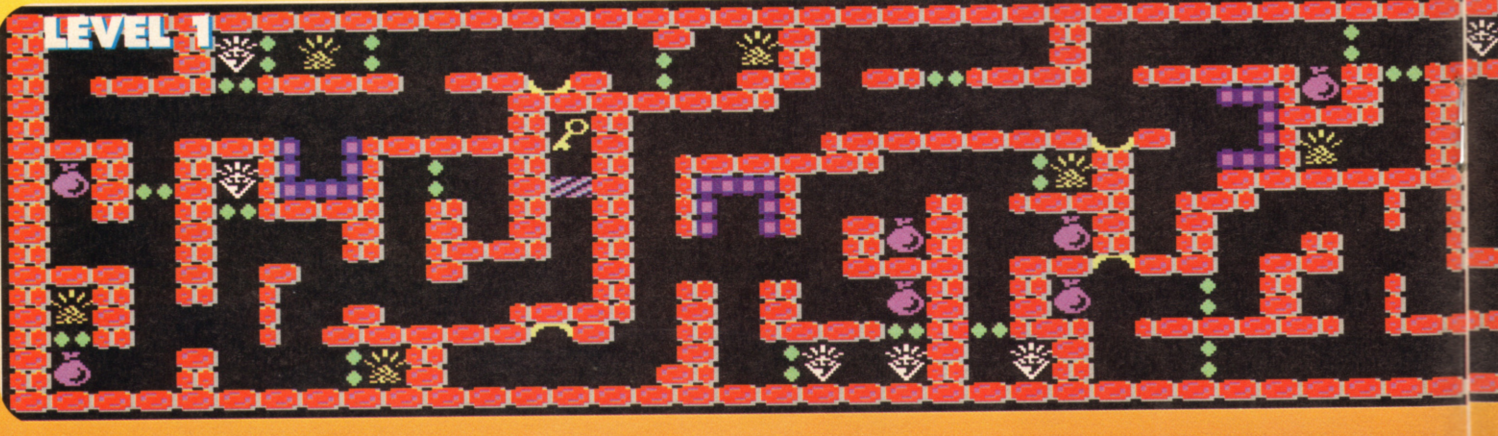
There are several different ways in which to tackle the level, owing to the fact that the location of the treasure will change from game to game. Nevertheless, there are always roughly 30 separate bits of treasure lying around; as Sinbad only needs to collect 16 bits of treasure, it leaves you with a very large choice indeed.

To begin with, collect the treasure as you progress towards the first key (use the map to plan your route). Hopefully, by the time you reach the key, you'll have collected enough to disable the force field. Now grab the key and make your way towards the exit (at the bottom-right of the level) and open the first door. As you progress to the exit, collect enough treasure to disable the second force-field, then head back for the second and final key – take this to the exit as before.

One final point to note: if you manage to grab the lamp, you'll have a few seconds to race around the maze without fear of attack or injury – use this advantage wisely.

LEVEL 2: THE ESCAPE (PASSWORD – COSMO)

This section, reminiscent of the ancient Firebird game called *Booty*, requires very cool nerves and quick reactions if you're going to survive long enough. The



task here is to completely wipe out the normal guards (the ones with the red turbans), before you turn your attention to the big chief, top dog, head honcho, main man (in a bright green turban). Do not attempt to kill the boss straight away, as he will keep re-appearing until the other guards have been killed.

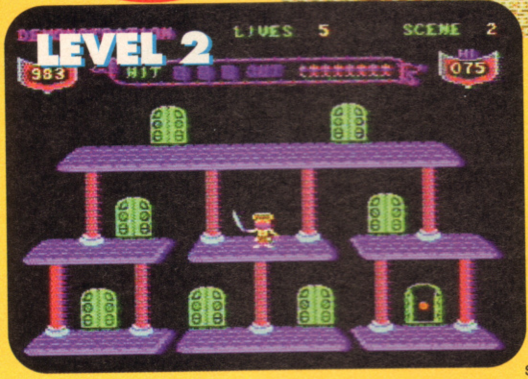
At the peak of the action, there can be a maximum of six enemies (including the boss) on-screen at any one time. Once a guard has been killed, a new one will appear from behind one of the eight green doors. From time to time, the lamp will appear at one of the doors – it's not essential to collect it, unless you're after some bonus points, that is.

Killing the guards is a relatively straightforward task. Simply hold your joystick left or right while holding the fire button. Note that as you swipe your sword, you will move forward ever-so-slowly. This can have its disadvantages. Also, note that the guards cannot be killed if they are leaping through the air; if one leaps towards you, get out of the way sharpish.

CHEATS APLENTY

If you're still finding the action a little too formidable, you can always use the splendid listing or Action Replay POKEs printed elsewhere in this month's Gamebusters section. Only if you think you're hard enough, though.

Once the quota of guards has been reached, you can turn your attention to the bright-green boss. He requires four hits before he shuffles off this mortal coil, but is a lot more difficult to kill than the previous opponents. When you strike him, he becomes very irate and will leap towards Sinbad; plan your attack and make sure you have room to run away (if all else fails, just leap up to the platform above). After three hits he will begin to flash (oo-er missus), and then it takes only one more swipe to finish him off.

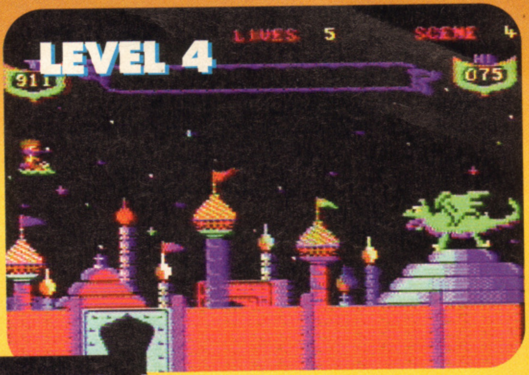


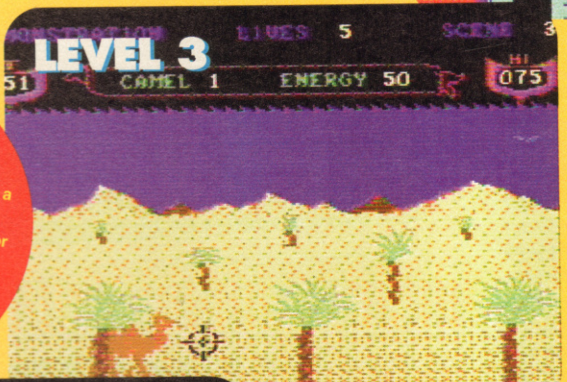
LEVEL 3: CAMEL TRAIN

(PASSWORD – STORM)

Here Sinbad's task is to protect the camels from attack as they progress across the desert (or from left to right across the screen in this case). Very simple in theory but very, very difficult in practice. There are two types of opponents here – ground-based enemies (such as the guards and scorpions), and the air-based enemies (birds and bizarre spinny-wheely-things, to coin a phrase). If an enemy hits the camel, energy will be taken from your current quota depending on what enemy it was. The maximum depletion is 20 units, the minimum is 10 units.

The guards appear from the left and head slowly across the screen. Leave them for too long and they begin to throw things at the camel (which usually hit their target). The scorpions appear at the right of the screen and move left towards the camel, but, to be honest, they're too slow to pose any real threat (although it pays to be cautious when the camel arrives at the far-right of the screen).





What weapon in Sinbad's day had targeting sights?

The birds are very awkward to hit, but are easily anticipated as they linger in the sky for a few seconds before they swoop down.

Finally, there is the spinning-wheely-thing (*I really don't think it's a term that's going to catch on in a big way – Dave*), which is the most difficult object to hit (owing to the somewhat staggered movement pattern), appears regularly from the top-right of the screen – shoot just as it reaches the tops of the trees.

Learning when to fire and controlling your bullets are probably the two most important skills to master on this level (*actually there aren't any other skills you need on this level, period – Dave*). Fast-moving objects can be very awkward to deal with, especially if they can move faster than your bullets. If things look a little bleak, you can always shoot at your camel to speed it up a little (please note that this effect is irreversible and not recommended by the RSPCA).

LEVEL 4: FINAL SHOWDOWN

(PASSWORD – TWIST)

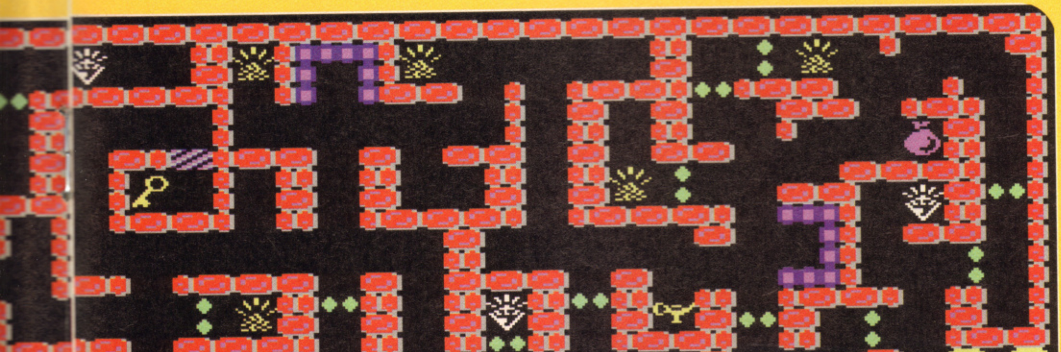
This is, without doubt, the toughest section of the game, and will certainly give even the most patient gameplayers a severe test of restraint. The primary task is to destroy 20 of the Sultan's minions, be they guards (on their flying carpets), or the large and particularly aggressive Roc Birds.

The enemies fly on from the right, usually in groups of six or seven. Most of them move up and down the screen as they progress, so it is very important to stay on the move at all times. Anticipating the movement of the enemies can be very tricky, especially as they fly quite erratically.

The guards only require one hit to kill, and bonus points are awarded if you manage to kill two guards with one bullet (as the old saying goes).

The Roc birds, however, require three hits each; this can be a little awkward at times, and the action becomes more and more frantic as they fly closer to you. As your firepower is limited, be sure not to waste bullets; aim carefully and deliberately. If things get too tough, you can always fly down to the bottom of the screen to buy yourself some breathing space (and you'll certainly need that).

Once the quota of enemies has been destroyed, the Sultan will appear and change magically into a huge dragon (apparently this is commonplace in downtown Baghdad). This formidable beast requires 15 shots to kill. As with the previous opponents, the dragon moves up and down frequently, shooting two fireballs at a time. The best tactic is to stay at the far left of the screen, moving up and down regularly (don`t linger in the same spot for too long). Defeat him, and you've completed the whole game!



MAYHEM PIPELAND DEMO

(POWERPACK 46)

Dozens of you spotted the deliberate cheat mode included in the demo, including David Slanden from Chatham, Martin Willis From County Armagh, John Ryan Jnr from County Limerick, Michael Ward from Leigh, Paul Hughes from Deeside and Anto May from Dublin. On the SAD stage, simply press the F1 key to skip straight to Theo's cave. And if you're still too incompetent to finish the demo, try the gaggle of Action Replay POKEs elsewhere in this section, or even the listing we printed last month. Marvellous.

BONECRUNCHER

(POWERPACK 46)

Our resident PowerPack cracker, Richard Beckett from York, makes his regular monthly appearance with a heap of good advice for this rather odd little arcade adventure. Take it away Rich...

- You can carry a maximum of nine skeletons before they act as a blockage (because they cannot be moved). Therefore it's best to find the cauldron to turn them into soap as soon as you have enough for a bar of soap.
- The skeleton-eating spiders will always follow the left-hand wall, so try to remove the earth around a spider to leave it circling around one piece of earth (where it can't do any harm).
- Spiders cannot be killed. If a spider consumes any skeletons, don't despair, as there are other ways of collecting the skeletons. First, you can kill monsters – to do this, you must trap them in a single square. This is easier said than done, as they home in on you. However, if you can get the monster to go into a corner and then wait for Fozzie or a spider to come and block it in, then it will die instantly leaving a skeleton behind. Alternatively, you can trap the monster between any nearby gloops.

  The other way to get skeletons is to murder your colleague, Fozzie (in war, there have to be casualties). Simply trap him so that he can't move and wait for his energy count to drop to zero – his skeleton will be left behind.
- Escaping from a monster without getting its skeleton is much easier. Simply walk to the opposite side of a trap door to the monster and it will pursue you and fall down the opening. If no trapdoors are present, you can slow the monster down while you escape in either of two ways. First, walk past Fozzie and hopefully he'll grab the monster for a couple of seconds. Second, you can run under a gloop and it should fall between you, either blocking him or making him wait while it falls past him.
- Forward planning is especially useful when you actually deliver the soap, as the gloops will move towards the point where you last delivered the soap. For example, if you deliver the soap to a monster on the right, the gloops will move right from then on. Therefore, if there are a number of doors to deliver to, choose the one which will

He really hasn't got a glue... a glue... geddit?

That towel's going straight through his head, you realise.

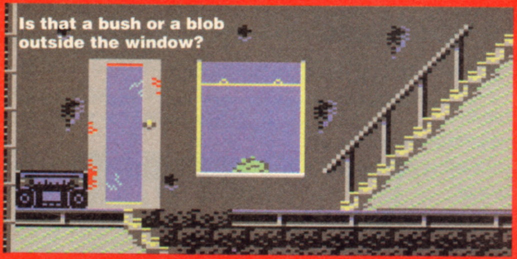
Don't come near me– we'll clash!

Hmm, I think the picture does him justice...

COOL WORLD

(OCEAN/KIXX)

This fabulous Kim Bassinger movie tie-in (*do I sense just a touch of sarcasm in that statement? – Ed*) has been out on budget for quite a few months, and has been the cause of many a letter expressing extreme frustration and seeking the Gamebusters' help. Let's face it, it's not your average platformer. Fret ye not, 'cos here's some suitably cool advice (with more to follow next month).


Is that a bush or a blob outside the window?

LEVELS 1 & 2: THE HOUSE

These are the ideal levels to practise the various skills that are essential for staying alive (and ultimately finishing the game). These include jumping gaps, shooting the Doodles and sucking the ink, as well as collecting the Nickel Baiters. The objects get deposited in Cool World fairly well spaced out, so stay there (as opposed to the real world) and send the objects back.

Things start to speed up on level two, and it's important to regularly switch between the two worlds – use the scanner just after you've teleported to find your bearings. As soon as there are three or more doodles in the real world, you need to teleport there and track them down, then nip back to the Cool World and return any objects.

LEVELS 3 & 4: THE SCHOOL

From this level on, the negotiation of the Cool Worlds becomes a little easier, but the five minute time limit seems to go on forever. The real world is littered with holes; while they aren't particularly hazardous, you might lose valuable energy by landing on a doodle. Constant switching between the two worlds is essential - eliminate as many doodles as possible in the real world before teleporting.

Level four is hectic, and a cool head (*groan – Ed*) is needed to complete the level without losing too many lives. Stay in the real world, killing doodles as you encounter them. When the action dies down a little, nip back to the Cool World and send back a few objects. Don't be tempted to wait in the real world too long, though – keep an eye on the danger meter and judge for yourself when teleporting is necessary.

From level four the Cool Worlds become easier to negotiate.

Level two – make sure you leap between worlds with care.

cause you the least amount of problems when the gloops actually move toward it.

- Another gloop-associated problem is the gloop volcanoes – these are positions on the map which, when the soil above them is removed, produce gloops in a seemingly never-ending stream. There is no way of telling where they are at first, but they don't vary from game to game, so it's fairly easy to remember the positions.
- When you open the doors with keys, be sure that the door actually leads somewhere, otherwise you might waste a valuable key.
- And finally, remember that pressing fire and a direction on the joystick will move the soil in that direction. This is particularly handy when you release a monster from an enclosure of soil, because it gives you a little extra running space.
- Quite a few people have also been kind enough to send in the complete set of passwords, including DW Cropton from Gloucester, John Hipkiss from Oldbury and Anto May. And it just so happens that I'm kind enough to print them...

2 GOLEMSTENCH
3 MORPHICLE
4 GOLEMKILLER
5 SCARAB
6 WEB OF DEATH
7 MONSTERPARTY
8 CAVE OF DOOM
9 UNDERGROUND
10 DEATHCHAMBER
11 GOLEMS CAVE
12 HORNSLUT
13 SLIMEHOLE
14 BLOODSMELL
15 BONE POWDER
16 NIGHTMARE
17 MONSTERBREED
18 THUNDERSTORM
19 CREEPY CAVE
20 LIQUIDATION
21 MEGAMAZE
22 STRATAGEMEND
23 STRATOSPHERE

HOWARD THE DUCK

(ALTERNATIVE)

He's a duck, he's got a silly name and to make matters worse he's the star of an exceedingly tricky entertainment software product. As luck would have it, we've lovingly crafted this listing for infinite lives.

```
0 REM HOWARD CHEAT BY WAZ
1 FOR X=384 TO 423:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>4120 THEN PRINT "DATA ERROR":END
3 PRINT "TYPE LOAD & PRESS RETURN"
4 PRINT "THEN TYPE SYS 384"
5 DATA 169,096,141,242,003,032,013,008
6 DATA 169,032,141,063,003,169,154,141
7 DATA 064,003,169,001,141,065,003,076
8 DATA 000,192,072,238,032,208,206,032
9 DATA 208,169,000,141,150,174,104,096
```

REAXION

(POWERPACK 47)

Now you can battle your way through each perplexing level of this covertape puzzler without having to worry about that ever-decreasing time limit; this cunning listing POKE will gladly freeze the countdown for you. Simply type it in, SAVE it for future use, then RUN it for infinite time.

```
0 REM REAXION CHEAT BY WAZ
1 FOR X=517 TO 584:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>7184 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 517
10 DATA 169,018,141,040,003,169,002,141
11 DATA 041,003,032,086,245,169,029,141
12 DATA 178,002,169,002,141,179,002,096
13 DATA 169,032,141,222,003,169,051,141
14 DATA 223,003,169,002,141,224,003,032
15 DATA 069,003,096,087,065,090, 169,198
16 DATA 141,131,040,169,136,141, 133,040
17 DATA 169,049,141,134,040,206,032,208
18 DATA 238,032,208,096
```

SOCCER BOSS

(ALTERNATIVE)

Apart from stocking up on Shredded Wheat and Predator boots, you can also put more power into your defenders and attackers by using this splendid listing for lots and lots (*and lots? – Ed*) of money.

```
0 REM SOCCER BOSS CHEAT BY WAZ
1 FOR X=269 TO 322:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>6076 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 269
10 DATA 032,086,245,169,032,141,240,003
11 DATA 169,001,141,242,003,076,174,002
12 DATA 087,065,090,238,032,208,238,032
13 DATA 208,169,049,141,128,009,141,130
14 DATA 009,169,048,141,131,009,169,055
15 DATA 141,133,009,169,172,141,129,009
16 DATA 169,174,141,132,009,096
```

Could you beat Alex Ferguson at his own game?

THE LEGEND OF SINBAD

(POWERPACK 47)

Swash, buckle, hack and slash your way through the entire game with considerable ease – simply type in the following listing POKE and RUN it for infinite lives and time. Blimey, what with the complete guide a couple of pages back and this listing, if you can't beat the game now, you might as well give up all hope and take up flower arranging for a hobby instead.

```
0 REM SINBAD CHEAT BY WAZ
1 FOR X=516 TO 569:READ Y:C=C+Y:POKE
X,Y:NEXT
2 IF C<>5589 THEN PRINT "DATA ERROR":END
3 POKE 157,128:SYS 516
10 DATA 032,086,245,169,019,141, 207,003
11 DATA 206,208,003,096,087,065, 090,169
12 DATA 032,141,013,010,169,002, 141,014
13 DATA 010,076,230,003,169,173, 141,242
14 DATA 034,141,050,044,169,234,141,052
15 DATA 046,169,096,141,182,044,169,006
16 DATA 141,048,179,076,027,008
```

A FISTFUL OF DOLLARS

Yessir, there's a crisp new tenner for the sender of the biggest, bestest and most useful batch of goodies every month in Gamebusters. We're after tips, maps, POKEs, solutions or anything else you think other *CF* readers find useful in their quest for gaming glory. Cram your goodies into an envelope and post the package to: Andy Roberts' Gamebusters, *Commodore Format*, 30 Monmouth Street, Bath, Avon, BA1 2BW. Don't forget to include your name and address, along with a Raisin and Biscuit Yorkie bar.

ACTION REPLAY POKES

It's the regular batch of cheaty-type things designed specifically for use with that wonderful little red box. To use them simply freeze the game, press E to enter the POKEs, then press F3 to restart the game. A big CHEERS to Richard Beckett, Warren Pilkington and Anto May for sending them in.

MAYHEM PIPELAND DEMO

POKE 48664,0	Infinite lives
POKE 46592,173	Invincibility
POKE 48523,169	
POKE 48524,9	
POKE 48525,234	Lots of time
POKE 15854,173	Infinite continues

BONECRUNCHER

POKE 14405,173	Infinite lives
POKE 15954,173	Infinite keys
POKE 17104,173	Infinite Fozzies
POKE 15676,173	
POKE 15722,173	
POKE 15768,173	
POKE 15817,173	Infinite soap

SINBAD

POKE 7560,173	
POKE 10112,173	
POKE 10626,173	Infinite lives
POKE 10244,96	
POKE 49921,6	Infinite time

REAXION

POKE 12680,198	Infinite time

SOS

He's cute, he's cuddly and he's got an enormous stack of cheats and POKEs up his sleeve (big sleeves as well, then – Ed). Andy Roberts steps into the spotlight once again to answer your gaming queries.

ALIENS

(ELECTRIC DREAMS/RICOCHET)

Mr D Fox from Unstone Green is after some help with this classic sci-fi adventure romp, so what better than a mighty selection of Action Replay POKEs? And if you're hungry for more, check out the tips in *CF*44. Anyway, prod the freeze button and enter...

`POKE 42043,189`	Infinite ammo
`POKE 42386,189`	Infinite stamina

WILD WEST SEYMOUR

(CODEMASTERS)

A very desperate Steven Higgins from Essex wrote in and literally begged for the codes to this Seymour escapade. To get to the relevant level, simply enter the relevant code...

LEVEL 2	21D135008
LEVEL 3	10C700068
LEVEL 4	238A35008

But if things are still too tough, try these Action Replay POKEs...

`POKE 13421,173`	Infinite lives
`POKE 13595,173`	Infinite energy

POSEIDON PLANET 11 (HI-TEC)

This cute little arcade adventure is causing no end of problems for Mr S Raymond and his two daughters. However, help is at hand – just type in this listing then RUN it for infinite lives.

```
0 REM POSEIDON PLANET CHEAT
BY WAZ
1 FOR X=384 TO 420:READ
Y:C=C+Y:POKE X,Y:NEXT
2 IF C<>3863 THEN PRINT "DATA
ERROR":END
3 POKE 157,128:SYS 384
4 DATA 032,086,245,169,144,
141,243,002
5 DATA 169,001,141,244,002,
076,167,002
6 DATA 169,157,141,019,005,169,001,141
7 DATA 020,005,076,224,004,169,173,141
8 DATA 193,092,076,016,008
```

MAYHEM IN MONSTERLAND

(APEX)

Yikes! The listings printed in *CF*47 contained a couple of slight errors,which no doubt caused a few headaches for avid Mayhem fans. So, simply correct the following lines...

TAPE VERSION

```
4 FOR I=1 TO 4:READ A$,W1,W2:PRINT A$;"
Y/N":INPUT B$(I)
```

DISK VERSION

```
3 FOR I=1 TO 4:READ A$,W1,W2:PRINT A$;"
Y/N":INPUT B$(I)
```

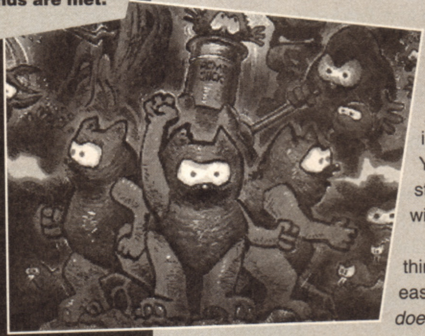
CREATURES

(THALAMUS/KIXX)

It's your friend and mine, CL Constable from Tunbridge Wells after some advice, cheats or POKEs for probably the greatest game the C64 has ever seen (apart from that *Mayhem* chappie, obviously). First, if you've got an Action Replay, try these POKEs:

`POKE 7328,173`	Infinite lives
`POKE 15596,60`	Invincibility
`POKE 44183,173`	Infinite shields

If not, you could always try the built-in cheat mode – wait until the title screen music stops playing (this takes three to four minutes), then plug your joystick into port one. When the high score table appears, waggle the joystick like crazy. The little Clyde sprites will jump as you waggle; keep waggling until they turn grey, then plug your joystick back into port two. You can now start the game with infinite lives. If you like things a little easier (*who doesn't? – Dave*) you could always hold down CTRL and 2 instead of waggling your joystick.



"We demand our demands are met."

And finally, if you're after a few extra Magic Potion Creatures, use this trick: on levels 1.2, 2.2, and 3.2, make sure that the last MPC you collect before finishing the level is an expanded MPC (ie, one of those big ones that give you five MPCs). Now finish the level, and when you complete the torture screen that follows, you'll get 30 magic potion creatures instead of the usual six.

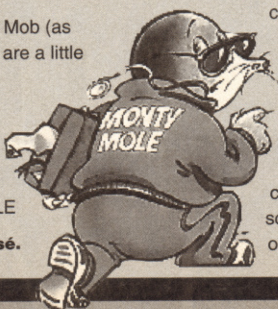
Now you can play the game with a multitude of life-saving cheats. Apologies for any problems or fits of despair we might have caused, and many thanks to Warren Pilkington for pointing out those teensy problems.

MONTY ON THE RUN

(GREMLIN)

The Canterbury Commodore Mob (as Dave asked me to call them) are a little stuck on this classic arcade adventure. In particular, they want to know what parts of the escape kit are needed. Basically, you should select the various items on the TITLE SCREEN, but if you don't collect the right ones then you can't finish the game. You need to choose the ROPE, the JETPACK, the PASSPORT, the GAS MASK and the BOTTLE OF RUM.

For immunity to the various nasties throughout the game, try this cheat; enter I WANT TO CHEAT on the high score table, then start the game and collect the little boat on the second screen. However, this cheat won't work on some versions of the game.



Shell suits are just so passé.

IS THERE A GAME THAT'S CAUSING YOU A HEADACHE?

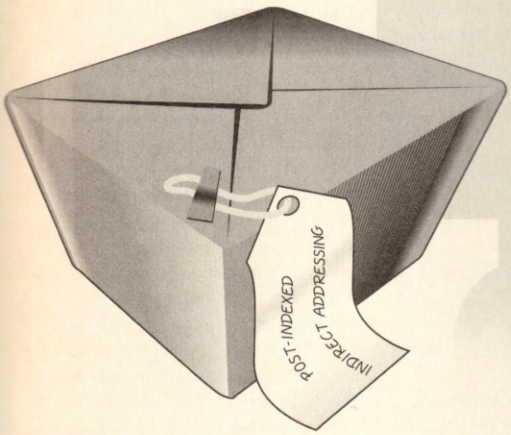
Don't be ashamed, you are not alone. Thousands have turned to SOS, and it could be the solution you're looking for, too. So, if you're stuck on any game, no matter how old, try this: get hold of a postcard or sealed envelope, jot down the games you're stuck on (including the publisher), specify the type of cheat you'd prefer or the part of the game you're stuck on, then send it along with your name and address to: SOS, *Commodore Format*, 30 Monmouth Street, Bath, Avon, BA1 2BW.

MEAN machine CODE

Part 5

We're into the heavy stuff this month with our Machine Code series, so if you're of a nervous disposition or pregnant, Jason Finch advises that you take extreme caution...

This month we're going to take a brief trip to hell and back. That's right, it's time for post-indexed indirect addressing (*sounds like the scientific name for, "the cheque's in the post" – Dave*). But don't faint just yet because I'm also going to introduce you to the joys of pre-indexed indirect addressing. If you're still in the land of the living after that, we'll take a brief look at the stack. But before all that I'll divulge a couple of secrets about the BCC and BCS branch instructions that were covered last month.



MORE OR LESS

There may come a time when you want to compare one number with another to check which one is the biggest. You'll probably know about less-than and greater-than signs in Basic. They mean you can do things like:

```
10 A=PEEK(1024)
20 IF A<65 THEN GOSUB 50
```

Remember that whenever you have to say "IF this THEN do that" you need one of the eight branch instructions in machine code. We've only covered four so far, but those four (BEQ, BNE, BCC and BCS) are the most common. To do a less-than comparison like in the snippet of program above, you have to use BCC:

```
10 LDA 1024
20 CMP #65
30 BCC SUBROUTINE
```

You don't really need to know why this is the case, but I'll tell you anyway. When the comparison is done, the computer subtracts from the value you are comparing, the value you are comparing it with. You know that if this results in a negative answer being produced, the carry flag will be cleared. Much the same as if you were to do the following:

```
10 LDA 1024
20 SEC
30 SBC #65
40 BCC SUBROUTINE
```

To check if one value is greater than another you use BCS instead. It actually checks if it is greater than or equal to the number concerned. Therefore the equivalent of `A=PEEK(1024):IF A>=65 THEN...` in Machine Code would be:

```
10 LDA 1024
20 CMP #65
30 BCS SUBROUTINE
```

You may be pondering over how you check if a value is only greater than a number. It's simple, you just eliminate the possibility of it being equal beforehand:

```
10 LDA 1024
20 CMP #65
30 BEQ CARRYON
40 BCS SUBROUTINE
50 CARRYON ;
```

MULTIPLE MATHS

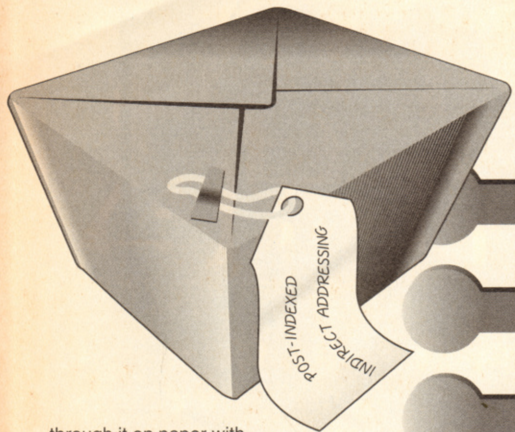
There are instructions for adding and subtracting in machine code. You saw those last month. You also saw rolling and shifting; the equivalent of multiplying and dividing a number by two. But what if you want to do something a bit more challenging? Say you wanted to multiply 485 by 57 in machine code. The answer is to use a multiplication routine that someone has already made for you:

```
1000 MULTIPLY ;
1010 LDA #0
1020 STA RESULT
1030 STA RESULT+1
1040 LDY #8
1050 MULT1 ;
1060 LSR MULTIPLIER
1070 BCC MULT2
1080 LDA RESULT
1090 CLC
1100 ADC MULTIPLICAND
1110 STA RESULT
1120 LDA RESULT+1
1130 ADC MULTIPLICAND+1
1140 STA RESULT+1
1150 MULT2 ;
1160 ASL MULTIPLICAND
1170 ROL MULTIPLICAND+1
1180 DEY
1190 BNE MULT1
1200 RTS
```

This may all seem quite complicated at first... er, that's because it is! You have to use lo-hi byte notation with MULTIPLICAND. The MULTIPLIER is a single byte number (0-255) with the lo-hi byte result being given in the memory locations that you have assigned to RESULT. To understand why it works you will need to understand how bits are manipulated. Perhaps you should work ➤

■ STICKY SITUATION

As part of the *Techie Tips Proggy Selector* this month, you will find a Basic loader and the equivalent assembly language source code for a routine that moves a sprite around the screen controlled by a joystick in port two. You call it by doing SYS 49152,X,Y where X and Y are the horizontal and vertical speeds (in pixels) respectively. I want you to read through the source code and work out why everything occurs as it does. There'll be a test on it next month.



through it on paper with some simple examples like seven times three to get the hang of the way it works.

INDEXED ADDRESSING

It will appear to be your worst nightmare. It's worse than a soggy sponge cake, and definitely worse than maths homework. Yes, it's post-indexed indirect addressing. The trouble is that it's dead useful and you will need it a lot, so it would help if you do at least try to understand it. Before I try to explain it, let's look at an example:

```
100 *=49152
110 LDA #$00; = LDA #<$D000
120 STA 251
130 LDA #$D0; = LDA #>$D000
140 STA 252
150 LDY #0
160 LOOP ;
170 LDA (251),Y
180 STA 1024,Y
190 INY
200 CPY #16
210 BNE LOOP
220 RTS
```

The post-indexed bit is line 170. The LDA instruction (without a hash sign) reads the contents of a memory location into the accumulator. Normally you would do LDA 1024 or similar. This tells the computer right away which address you are interested in. The 251 in brackets on line 170 is also an address; one in zero page. The computer looks at what's in 251 and 252, the next location, and makes up a new number from this. In our example, we have stored $00 in 251 and $D0 in 252 (in lines 110-140). Therefore, the new number would be $D000. Locations 251 and 252 therefore act as a vector, storing the "base" address in standard low byte followed by high byte format. The contents of the Y index register are then added to this base address to find the actual address. You must always use a zero page address as vector, and always the Y index register. Try this one:

```
100 *=49152
110 LDA #$E8; = LDA #<$03E8
120 STA 251
130 LDA #$03; = LDA #>$03E8
140 STA 252
150 LDY #$18
160 LDA (251),Y
170 INY
180 STA (251),Y
190 RTS
```

Lines 110-140 store the two-byte number $03E8 as a vector in locations 251 and 252. Line 160 tells the computer to look at locations 251 and 252 for a two-byte number, and it finds $03E8 because that's what you've just stored there. It adds the Y index register to this: $03E8+$18=$0400 (1000+24=1024 in decimal). So 1024 is the address from which it loads a value into the accumulator. The Y register is then incremented at line 170 and line 180 stores the result back to an indexed address. This time it is $03E8+$19=$0401.

FILL 'ER UP

You can use post-indexed addressing to fill large chunks of memory with the same information very quickly. For example, the following piece of code will clear the standard bitmap ($2000-$3FFF) area in one foul swoop:

```
100 *=49152
110 LDA #$00;
120 STA 251 ; STORE $2000 AS A
130 LDA #$20; VECTOR AT 251/252
140 STA 252 ;
150 LDY #0
160 TYA ; COULD DO LDA #0
170 LOOP ;
180 STA (251),Y
190 INY
200 BNE LOOP; LOOP FOR LO-BYTE
210 INC 252 ; INCREMENT HI-BYTE
220 LDA 252 ; CHECK HI-BYTE
230 CMP #$40; UP TO $4000
240 BNE LOOP
250 RTS
```

BEFORE IT ALL

You can do pre-indexed indirect addressing as well. It is very rarely used in the normal course of things, but I will cover it to make sure your fountain of knowledge has enough water in it. With this, you still use a zero page address as a vector, but it works with the X index register. We are also still dealing with reading values from memory addresses rather than loading them directly as numbers using a hash sign.

```
10 LDA #$00
20 STA 253
30 LDA #$D0
40 STA 254
50 LDX #2
60 LDA (251,X)
```

What happens here is that the computer thinks, "Ah, location 251. But hang about, I need to add the X register to that first. Only then can I use the right vector." So that's what happens. Here, X=2 and so 251+X=253. So now we use that as a vector and must look at locations 253 and 254. Here we have stored, in the standard format, the two byte number $D000. Therefore, our LDA (251,X) in the above example actually does the same as LDA $D000. There are a few places where this sort of thing will prove necessary. When you need to use it, you will suddenly realise after a bit that it's the only way; you won't find any uses by thinking about it (*is that why you can't come up with any examples? – Dave*).

■ STACKING

No, I'm not talking about your Saturday job at the local supermarket. The C64's stack is the first page of memory after zero page; locations $0100 to $01FF inclusive. It works pretty much like a stack of books. You add things to the stack and can then take them off again later; the last thing added to the stack is the first thing that is removed. The computer uses the stack to store memory locations during JSR instructions and the like. This is how it remembers where to go when it reaches an RTS at the end of a routine. You can use it as well. There are four commands related to adding items to the stack (pushing) and removing them (pulling). You can push or pull the accumulator or the processor status register using the PHA, PLA, PHP and PLP instructions. We'll leave PHP and PLP until I've explained what the processor status register is.

```
10 *=49152
20 LDA 1025
30 PHA
40 LDA 1024
50 STA 1025
60 PLA
70 STA 1024
```

The above short piece of code swaps the contents of locations 1024 and 1025 by using the stack. It reads in the value in 1025 into the accumulator. This value is then pushed on to the stack. Imagine it as writing the number on the front of a book and then putting that book on to your pile of books. The value in 1024 is then read in and stored back to 1025. The accumulator is then pulled back off the stack and stored at location 1024. This is the equivalent of retrieving the book on the top of the pile and looking at the number written on the front of it. In any one routine or subroutine, the number of PHAs must match exactly the number of PLAs. If they differ, the computer will get confused and crash. For example, never do something like this:

```
10 LDA 53280
20 PHA
30 JSR ROUTINE
40 RTS
50 ROUTINE ;
60 PLA
70 STA 53281
80 RTS
```

Line 60 will not pull the same value off the stack as was pushed on to it at line 20. Line 30 results in a two byte address being pushed on to the stack so that the computer knows where to go back to (the return address) at line 80. Therefore you actually destroy the return address by pulling part of it off the stack in line 60.

NEXT MUNF

Let the nation mourn, for next month is the final episode of Mean Machine Code. We'll be taking a detailed look at the sprite program from this month's Power Pack, and I'll clear up everything that hasn't yet been explained. Don't have nightmares about that indexed addressing!

EVERGLADE

68 TELFORD ST, INVERNESS, IV3 5LS
Tel/Fax: 0463 240168

C64 Budget Software

3D Pool	£3.95
Action Fighter	£3.95
Airborne Ranger	£3.95
Armalyte	£3.95
Barbarian	£2.95
Barbarian II	£3.95
Bubble Bobble	£3.95
Bubble Dizzy	£3.79
California Games	£3.95
Castle Master	£3.79
Championship Wrestling	£3.79
Classic Arcadia 3	**£3.79**
Micro Ball/Moon Cresta/Star Raider II	
Crackdown	£3.95
Creatures	£3.95
Dizzy Down the Rapids	£3.79
Dizzy Panic	£3.79
Dragons of Flame	£3.95
Fantasy World Dizzy	£3.79
F-16 Combat Pilot	£3.95
F-15 Strike Eagle	£3.95
Final Fight	£3.95
Fimbo's Quest	£3.95
Forgotten Worlds	£3.95
Fun School 2 6-8 yrs	£3.95
Fun School 2 <6 yrs	£3.95
Fun School 2 >8 yrs	£3.95
Ghouls & Ghosts	£3.95
Go for Gold (Disc)	£5.95
Go for Gold	£3.95
Gunship	£3.95
Hawkeye	£3.95
Heroes of the Lance	£3.95
Heroquest	£4.95
Indy Jones & Fate of Atlantis (NEW)	£3.95
Indy Jones & Last Crusade	£3.95
Italy 1990	£3.95
Kwik Snax	£3.79
Lethal Weapon	£3.79
Jack Nicklaus Golf	£3.95
Jahangir Khan's W.C Squash	£3.79
Lotus Esprit - Turbo Challenge	£3.95
Magic Rufus	£3.79
Manchester United - Europe	£3.95
Mercs	£3.95
Microprose Soccer	£3.95
Mini Office 1	£2.99
Moonwalker	£3.79
Multimixx 1	**£4.95**
Leaderboard/W.C Leaderboard/ Leaderboard Tournament	
Multimixx 2	**£4.95**
Raid/Beachhead/Beachhead II	
Multimixx 4	**£4.95**
Gauntlet/The Deeper Dungeons/Gauntlet II	
Multimixx 5	**£4.95**
Monty on the Run/Jack the Nipper II/ Auf Weidersehen Monty	
Myth	£3.95
Narco Police	£3.79
New Zealand Story	£3.95
Night Shift	£3.95
Outrun	£3.95
Outrun Europe	£3.95
Pictionary	£3.95
Pirates	£4.95
Pirates (Disc)	£7.95
Popeye 3	£3.79
Pro Tennis Tour	£3.95
Project Stealth Fighter	£4.95
Rainbow Islands	£3.95
Real Ghostbusters	£3.79
Rick Dangerous	£3.95
Rick Dangerous 2	£3.95
Road Blasters	£2.95
Robocod - James Pond 2	£3.95
Rodland	£3.95
Shadow Dancer	£3.95
Soccer Double 1 & 2	**£3.95**
World Soccer League/ WorldChampions/ Premier II/ European II	
Solo Flight	£3.95
Space Gun	£3.79
St Dragon	£3.95
Streetfighter	£3.79
Streetfighter 2	£3.79
Streetfighter 2 (Disc)	£6.95
Strider	£3.95
Strider 2	£3.95
Stunt Car Racer	£3.95
Summer Camp	£3.95
Super Monaco G.P	£3.95
Super Scramble	£3.95
Super Space Invaders	£3.95
Swiv	£3.95
Table Tennis	£3.79
Tai Chi Tortoise	£3.79
Terminator 2	£3.95
Test Master	£3.95
The Addams Family	£3.95
The Simpsons Vs The Space Mutants	£3.95
Thunderblade	£3.95
Total Recall	£3.79
Trevor Brooking's World Cup Glory	£3.79
Trivial Pursuit	£3.79
Turbo Charge	£3.95
Turbo Outrun	£3.95
Turrican	£3.95
Turrican 2	£3.95
Tusker	£3.95
World Championship Squash	£3.79
Wrestling Superstars	£3.95
WWF -Wrestlemania	£3.95
WWF 2 - European Rampage	£3.95
X-Out	£3.95

Mouse Mats

Colours: Blue, Black or Red	£2.49

FREE WATCH WITH EVERY 2 CASSETTES/DISKS/CARTRIDGES BOUGHT BEFORE 15TH OCTOBER 1995 (UK ONLY)

C64/128 Back Catalogue

CASSETTE FORMAT ONLY UNLESS STATED

Roller Coast Rumbler	£2.24
Super Sprint	£2.24
Super Trux	£2.24
Kellogg's Tour	£1.99
Hopping Mad	£2.24
Dream Warrior	£2.24
Beyond the Ice Palace	£2.24
Mask	£2.24
Power Pack	**£2.24**
BMX Kidz/Dragination/Thrust II/Prodigy	
Zoomerang	£2.24
Fist II	£2.24
The Last Ninja	£2.24
Water Polo	£2.24
Flying Shark	£2.24
Blood Brothers	£2.24
Football Manager	£1.99
The Sports Pack	**£2.24**
Turbo/Derby Day/Pilot 64/Handicap Golf/ World Cup/Test Match	
Gemini Wing	£2.24
International Ninja Rabbits	£2.24
Miami Vice	£2.24
Addicta Pack	**£2.24**
Mad Nurse/The Happiest Days of Your Life/ Pogo-Stick Olympics/Skateboard Joust	
Combat School/Gryzor (Demo)	£2.24
Big Four Vol II	**£2.24**
Thanatos/Sigma 7/Deep Strike/Saboteur II	
Menace	£1.99
Ballistix	£1.99
Navy Moves	£2.24
Spitting Image	£2.24
Caesar the Cat	£2.24
Karnov	£2.24
Wicked	£2.24
Best of Elite Vol I	**£2.79**
Bomb Jack/Frank Bruno's Boxing/ Commando/Airwolf	
Best of Elite Vol 2	**£2.79**
Paperboy/Ghosts 'n' Goblins/Battleships/ Bomb Jack II	
Continental Circus (Driving Game)	£2.24
Bangkok Nights	£2.24
Star Pack	**£2.24**
H.A.T.E/Dark Fusion/Future Knight/Artura	
Bristles	£2.24
Rambo - First Blood Part II	£2.24
Hyper Sports	£2.24
Swimming/Skeet Shooting/Long Horse/ Archery/Triple Jump/Weight Lifting	
Trivial Pursuit (Baby Boomer Data Tape)	£1.99
James Bond - Licence to Kill	£2.24

C64 Disc

Best of Elite Vol 2	£4.95
Paperboy/Ghost's 'n' Goblins/Battleships/ Bomb Jack II	

Accessories

Replacement C64 T.V Antenna Cable	£3.95

PRICES INC P&P. ITEMS SUBJECT TO AVAILABILITY. EC ADD £1 PER TITLE/REST OF THE WORLD £2.00 . ER TITLE

STOP PRESS Creatures 2 (Tape £11.95 ◆ Disk £14.95)

MEGATRONIX PD *C64 Public Domain!*

PLEASE CALL US OR SEND A BLANK DISK AND AN S.A.E FOR OUR CATALOGUE DISK, OR JUST AN S.A.E FOR OUR TAPE PD CATALOGUE!

SPECIAL OFFER...SPECIAL OFFER...SPECIAL OFFER

We have compiled ten double-sided disks from the many PD disks in our collection and are selling them for just £1.00 each!

PD GAMES ● MUSIC ● GRAPHICS ● BUSINESS
UTILITIES ● DEMOS ● DISK MAGS ● PRINTSHOP

Just send us £1 (Coin, Cheque or PO) and choose any one of the disks above! We'll send your disk(s) with a FREE Catalogue Disk!

SPECIAL OFFER...SPECIAL OFFER...SPECIAL OFFER

Please make cheques and PO's payable to 'D Kelly'! Thank you!

21 Tiled House Lane, Pennsett, Brierley Hill, W. Midlands DY5 4LG
Telephone: (0384) 77172 - For your FREE Tape/Disk Catalogue!

C64 SOFTWARE HIRE CLUB

3 Briarbank Avenue,
Nottingham
NG3 6JU

Send SAE for full details
Amiga list also available on request

Hey you! (Who me?) Yes you! Check this out...

UTOPIA PD

We at Utopia PD stock the very best Public Domain software for your C64, (Disk only I'm afraid, but we are working on tapes!)

Our software ranges from very useful utilities to Music Players to cool PD games and of course the latest and best demos!! Disks cost just £1.50 each (even double sided ones!) and each disk is packed full of finger lickin' software! WORDUP!

So if you wanna stretch your C64's capabilities a little further then squiggle an SAE to:

UTOPIA PD
10 Cwmaman Road, Godreaman,
Aberdare, Mid Glamorgan
CF44 6DG

ULTRA SOFTWARE

CALL NOW ON....
(01295) 73 00 60
FOR A FREE CATALOGUE

NEW C64/128 DISK SOFTWARE 1 GAME - £3.45 2 - £5.95 5 - £12.95

5th Gear
Action Pack
Addictaball
Aftermath/Deadzone
Alien
Alternative World-Games
Arac
Artura
Ball Blaster
Ball Games Pack
Battleships
Battle Stations
Batty
Bionic Ninja
Bloodbrothers
Blue Thunder
Book Of The Dead
Boulderdash 2
Boulderdash Con Kit
Bouncing Heads
Bugsy
Bulldog
Cauldron 2
Chain Reaction
Challenge Golf
Classic Arcadia
Colossus Bridge 4
Colossus Mahjong
Colossus Chess 4
Cosmic Causeway
Critical Mass
Daglish Soccer Manager
Dark Fusion
Darkside/Morphicle
Death or Glory
Deep Strike
Deflector
Die Hard 2
Dig Dug
Discovery
Draconus
England
European 5-a-Side
Eye Of Horus
Federation
Fight Night/Outrain
Flight Pack
Football Manager
Football Manager 2 plus Exp Kit
Football Manager 3
Football Manager: World Cup
Fruit Machine
Future Knights
Glider Pilot
Golden Oldies
Hate
Head Coach
Hell Hole
Hercules/Gods & Heroes
Herobotix
Highway Encounter
Hit Pack
Hotshot
I Ball
Ice Hockey
Ice Temple
Indoor Games Pack
International Arcade Action
Into Oblivion
Jack The Ripper
Jetboys
Kelloggs Tour
Kokotoni-Wilf
Krakout
Las Vegas Casino
Lifeforce
Mandroid
Master Blaster
Mataplex
Mega Pack
Mountain Bike Racer
Movie Premier
Nato Assault Course
New Pack Of Aces
New Thriller Pack
Ninja Command
Ninja Master
Ninja Scooter
Overlander
Para Academy
Para Assault Course
Plasmatron
Powerama
PSI Droid
Pub Games
Quest of Tires/Zip
Racing Pack
Rally Simulator
Rebounder
Renegade
Road Warrior
Rock & Wrestle
Rogue Trooper
Room 10
Sabotage
Saboteur 2
Sakte Rock
Scorpion
Seabase Delta
Secret Of Kandar/Terminator
Skate Crazy
Slayer
Smash TV
Soccermania
Space Academy
Spaghetti Western
Sports Mix
Sports Pack
Stack Up
Star Pack
Starray
Steel
Steve Davies Snooker
Storm Warrior
Stratton
Strip Poker
Subterranea
Syntax
Terra Fighter
The Muncher
Thrust
Thundercross
To Hell & Back
Turbo Boat Simulator
Vengeance
Video Card Arcade
Water Polo
Wizard's Lair
Wolfman
Xenon Ranger/The Enforcer
Zamzara
Zybex

LOWER PRICED CASSETTES 1 GAME - £3.45 2 GAMES - £5.95 5 GAMES - £12.95

3D Pool
4 Most Thrillers
Addams Family
American Tag Team Wrestling
Arnie 2
Bangers & Mash
Batman: Caped Crusader
Bubble Dizzy
Captain Dynamo
Carnage
Castle Master
Championship Wrestling
Classic Arcadia 3
Classic Arcadia 4
Colussus Bridge 4
Combat School
Count Duckula 2
Dizy Down The Rapid
Dizzy Panic
Doc Croc's
F-15 Strike Eagle
Final Fight
Fun School 2 (over 8s)
Fun School 2 (under 6s)
Ghostbusters 2
Great Escape
Head Over Heals
Indy Jones Last Crusade
International Truck Racing
Jahangir Kahn W.C. Squash
Kick Boxing Vigilante
Lethal Weapon
Lotus Esprit Turbo
Matchday 2
Mercs
Murry Mouse Supercop
Narco Police
New Zealand Story
Outrun Europa
Pegasus Bridge
Popeye 3
Postman Pat 3
Rainbows Islands
Reckless Rufus
Robocop
Rodland
S.W.I.V.
Seymour Stuntman
Shadow Dancer
Skull & Crossbones
Space Gun
Steg the Slug
Stunt Car Racer
Seymour Saves The Planet
Table Tennis
Tai Chi Tortoise
Terminator 2
The Simpsons
Total Recall
Trevor Brooking World Cup Glory
Turbo The Tortoise
Turrican 2
World Champion Squash
Wrestling Superstars
WWF Wrestlemania

EVEN LOWER PRICED CASSETTES

1 GAME - £2.95 2 GAMES - £4.95 5 GAMES - £9.95

4 in 1 Hitpak
Addicts Pack
Ballistix
Best Of Elite 1
Best Of Elite 2
Beyond The Ice Palace
Big 4 Vol 2
Blood Brothers
Box 20 Sports
Bristles
Caesar The Cat
Continental Circus
Fist II
Flying Shark
Football Manager 2 Exp Kit only
Football Manager 2 plus Exp Kit
Football Manager 3
Football Manager World Cup
Gemini Wing
Hook
Hopping mad
Hotshot
Hypersports
Licence To Kill
Mask
Miami Vice
Navy Moves
Power Pack
Rambo
Roller Coaster Rumbler
Soccer Mania
Spitting Image
Sports Pack
Star Pack
Super Sprint
Supertrux
Thriller Pack
Wicked

C16/PLUS 4 CASSETTES

1 GAME - £1.95 2 GAMES - £3.45 5 GAMES - £6.95

Beach Head
Championship Wrestling
Classics III
Football Manager
Gold
Harbour Attack
Ikari Warriors
Skyhawk

C64 CASS

Hero Quest	3.95
Ultimate Golf	3.95
Wheels Of Fire	4.95
Cartoon Collin	5.95
Smash 16	5.95
Super Seymour	5.95

C64 DISK

Box 20: Sci-Fi	5.95
S Spiele	7.95
Big 100	7.95
Thriller/Aces	9.95
Okano 2	15.95
Vol 1 Class	15.95

British P&P is FREE. Overseas please add 20%. Cheques/Postal Orders only, payable to ULTRA SOFTWARE.
Please send orders to Ultra (CF49), Fulling Mill, Broughton, Banbury, Oxon OX15 6AP

MULTIPLEX

3 Middleton Business Park, Middleton on Sea,
West Sussex PO22 6HS
Telephone 0243 587089. 24 Hour Credit Card Order Line.
Access or Visa

REPAIRS

C64 Repair	£19.95
C+4/C16 Repair	£19.95
1541 Repair	£29.95
C128 Repair	£29.95

SPARES

Genuine C64 Power Supply	£14.95
Replacement C2N plus and lead	£3.95
C64 User Manual	£2.95
C64 Programmers Ref. Guide	£4.95
RF Lead	£1.95

Printer/Disk Drive Lead (6 Pin Din)	£1.95

CHIPS (PULLS FROM NEW PCBs

6510 MPU	£3.49
6526 CIA	£3.49
Sound Chip (SLD)	£3.99
Video Chip (VIC)	£5.99

SOFTWARE

C64 Cartridge. Terminator 2	£8.95
C64 Cartridge. Flimbo's Quest, Klax, Int. Soccer	£8.95

DISK SOFTWARE All at £3.99 each
The Creation Pack - The Addams Family - Hook - Smash TV
James Pond 2 - Magnetron - Strider 2 - Turrican - Sons Liberty

CASSETTE SOFTWARE All at 99p each or all 20 for £17.95
After Burner - The Boxer - Bumble Bee - Frenzy - Ghouls - Gryzor
Guardian Angel - Inside Outing - Kamikaze - Karnov - Last Duel
Para Academy - Phileas Fogg - Rambo part 2 - SDI - Shao Lins Road
Super Kid - Supersprint - Terra Cognita - Xybots

QUICK DATA DRIVE With 128K Wafer £17.95
Transfers Data Between Cassette and Wafer
Connects via C64 Cassette Port, with through port for C2N

Carriage to you included on all orders and repairs
All repairs carry a three month guarantee.

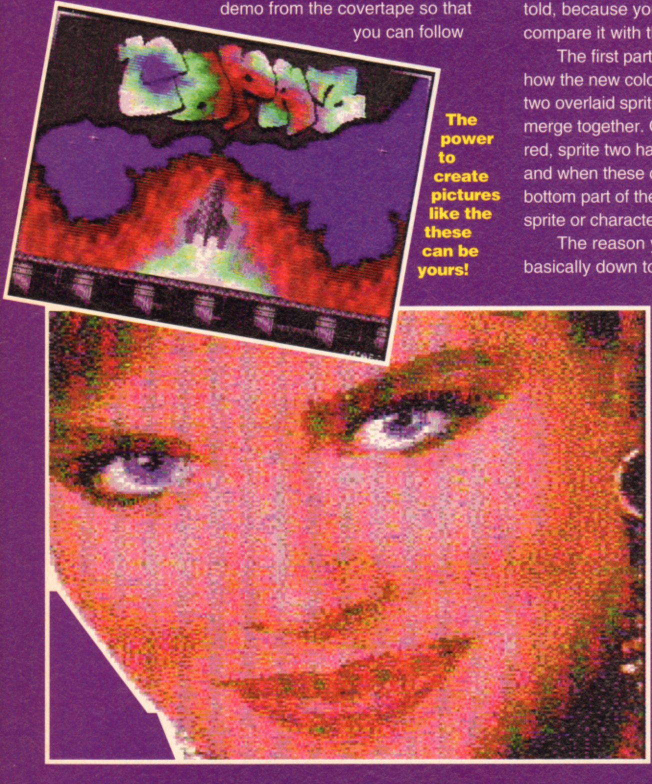
COLOUR-ME BAD

Who says the C64 is limited to 16 colours? Certainly not Russ Michaels of The Electric Boys, and he's here to prove that there's loads you can do to create technicolour masterpieces...

We have had loads of letters following the *Mean Machine* demo asking us how we managed such awesome pictures with so many colours, and can we tell you how it's done? Well, frankly, no, it's a secret.

Just kidding.

What I shall endeavour to do here is to explain how and why colour-mixing, FLI, interlacing and all those other graphic tricks are achieved. While you're reading this it'd be a good idea to load up the accompanying demo from the covertape so that you can follow the explanations a bit better and see the actual results. Interactive magazine features – don'tcha just love 'em?



The power to create pictures like the these can be yours!

COLOUR-MIXING

Let's start with colour mixing. A few issues back the Roland Boyz covered this technique briefly, and as you know they made good use of it in *Mayhem*. But you only know that because they told you. You probably don't realise that colour-mixing is actually used in quite a few games, whether done purposefully or by accident. It's just one of those things you don't notice unless you are told, because you only notice a new colour when you compare it with the regular ones.

The first part of the demo (after the intro) shows you how the new colours are created; up the top we have used two overlaid sprites to show how the two separate colours merge together. One sprite has every other line drawn in red, sprite two has the alternate lines drawn in dark grey, and when these colours are put together – voila. On the bottom part of the screen is an enlarged view of how a sprite or character would look when you draw it.

The reason you can create these new colours is basically down to the frequency (brightness) of the colours you are using. For example, red and grey can be mixed as both colours are dark and on the same frequency. But if you try to mix something like yellow and blue the difference between the colours would be plainly visible – the technical term for this is chromanoise.

The second part of the demo (after pressing space) contains a chart showing you the best results of colour mixing. There are a few other colours possible, but the frequencies are not quite perfect, thus you can notice the two mixed colours. Another thing to be aware of is that the colour is also affected by the colours that surround it, including the screen colour, just like if you used a red marker on white paper the result would be different to using a red marker on blue paper.

REAL FLI GUIDE

FLI stands for Flexible Line Interfacing, and what it allows you to do is use more colours per character in your pictures. But to understand how it works you first need to understand how normal bitmap graphics work.

In a standard bitmap graphics screen you can use up to three colours per character position plus the background colour. This is because there are only three possible bit combinations to say which colour the pixels can be set at. To make things a little easier to understand, I've drawn a few diagrams that should make things clearer. Fig 2 is a normal high resolution character on a bitmap (single colour), Fig 3 is a low resolution character on a bitmap (multicolour). On a multicolour bitmap the pixels are doubled in width, which means you only have four pixels instead of eight horizontally, but despite this fact, all eight bits are still used to define which pixels should be which colour.

So in one character square there are eight horizontal lines each eight bits long. In other words, each horizontal line of the character is a byte, and the character comprises eight bytes.

If you look at Fig 1, this shows the bits that represent each pixel. The top row of numbers is HEX and the bottom is decimal. From now on I will be working in HEX, so any reference will be to the top row. To make things easier for you, I suggest you redraw Figs 1, 2 and 3 on a separate sheet of paper, so you don't have to draw on the magazine (we know how much you love you *CF*).

We'll deal with hi-res mode first, 'cos it's more logical that way, basically. In order to understand how the characters are defined, let's say you want to draw an A in the top left-hand corner of the bitmap. The data for this, assuming the bitmap is at $2000 would be:

```
$2000 18 28 66 7E 7E 66 66 00
```

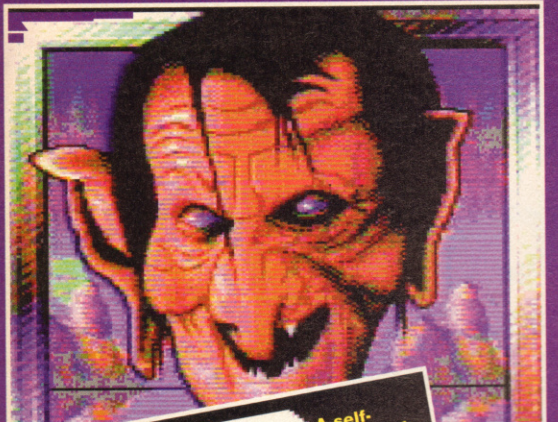
Each byte represents one line of the character (eight pixels), the sum of all the pixels that are turned on. So let's take the first byte, 18; now find the bits on Fig 1 that form this value, 10 and 8,. Now fill in those pixels on the top line of Fig 2. Next do the same with the second byte, 28; this is made up from bits 20 and 8, so fill in the corresponding pixels on Fig 2. Repeat this process until you have filled in all eight bytes. You should now have drawn a letter A in Fig 2.

Now that you hopefully understand hi-res characters, let's give low-res multicolours a go. The colours for low-res are set as follows.

The value in screen memory represents colours one and two (the multicolours). If the value at $0400 (1024 decimal) which is the top-left of the screen, was set at £$01 this would mean colour two is one, which is white, and colour one is zero, which is black. If the value was £$26 the two means that colour one would be red, and the six makes colour two oh, so blue. The third colour on a bitmap (known as the character colour) is set by the colour memory at $d800 onwards (55,296 decimal).

So, to sum it all up, the first eight bytes at $2000 define the shape of the character, the value at $0400 sets colours one and two and the value at $d800 is the character colour. So all that is left is to work out how the data at $2000 knows which pixel is which colour?

Okay, let's say you want to draw a low-res (multi-colour) character with



This picture really was created on a C64.

A self-portrait of a C128.

> *“The other advantage you get with interlacing is that you can create new colours”*

red, white and blue vertical stripes from left to right. Draw this onto Fig 3 so that there is a vertical line of red pixels, then a vertical line of white pixels, then a vertical line of blue pixels and finally leave the last column blank.

Let's see how this translates into the bits in Fig 1.

The difference with multicolour is that one pixel on Fig 3 is represented by two bits on Fig 1. This gives you four different combinations of set/not set bits within each pixel – set, set (11), set, not set (10), not set, set (01) and not set, not set (00).

So let's take the very first pixel that you drew on Fig 3 which should be red (colour one). This is represented by bits 80 and 40 on Fig 1, and the colour of that pixel is determined by the bits being set in this order:

01 = colour one (low bit of $0400), so the value at $0400 would be £$02 for red.

10 = colour two (hi bit of $0400) so the value at $0400 would be £$10 for white.

11 = colour three (character colour), so the value at $d800 would be £$06 for blue.

But as we know, the pixel is red, which is colour one, so only bit 40 is set (01). Now let's take the second pixel from Fig 3, represented by bits 20 and 10 (as you'll know if you refer to Fig 1). This pixel is white, which is colour two, so only bit 20 is set (10). Now the third pixel from Fig 3, represented by bits 8 and 4, is blue, which is colour three, so both bits are set (11) and so on. On the last pixel, there is no colour, so the background colour is used, so neither bits 2 nor 1 are set (00). The final data for this character would then be:

`$2000 6C 6C 6C 6C 6C 6C 6C 6C`

Each line of the character is the same so all the bytes will be the same, 40 (for pixel one), + 20 (for pixel two), + 0C (for pixel three) + 00 (for pixel four) = 6C. The value at $0400 will be £$12 (1=white, 2=red), and $D800 will be £$06 (blue).

Because only one value can go at $0400 and $d800, and because only the combinations (01, 10, 11) are available, this is why only three colours per character (plus the background colour) are available.

So now you hopefully understand the design of a bitmap (well one character's worth, anyway). now we can finally deal with why FLI manages to produce more colours.

What FLI does is to split the screen on every single raster. On each split it reads the screen from a different part of memory, so because there are eight lines to each character, eight different screens are needed.

Because colours one and two are stored on the screen, by changing the screen's location different colours for one and two can be stored in those different screen locations. For example, screen one will be $0400 - $07FF, screen two will be $0800 – $0BFF and so on, which means that all 16 colours can be used in each character. Colour three, though, must remain the same on each line as the location of colour RAM ($D800) cannot be changed. And there you have it.

Right, well that's the theory to FLI. In practice it's a bit more complicated. About another couple of pages more complicated, in fact, which is why we'll be going into a bit more detail in a follow-up feature next month (*you will? Er, I suppose you'd better now. That's one way of getting some freelance out of me I suppose – Dave*).

INTERLACING

Now this is reeeeaaaallllly easy. You should all know by now from Jason Finch's tutorials that the screen can be put into 38 column mode by poking 53270,0. Now, if you vary this poke between 0-7 you can scroll the screen left and right eight pixels (one character).

What interlacing involves is having two versions of the same picture in memory at once and flipping between the two; when picture one is displayed, location $D016 (53270) will be at 16; when picture two is displayed, $D016 will be at 17. Thus each picture is slightly overlapping the other by one pixel. But I guess you want to know what this is good for?

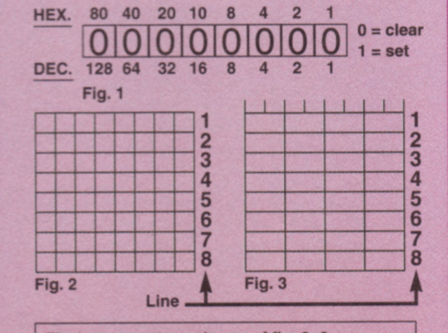


Fig.1 represents each row of fig. 2+3

MAKE THAT CHANGE

The last part of the demo is an interlace/colour-mixing editor which allows you to experiment with different styles of colour-mixing and interlacing with various character definitions.

COMMODORE FORMAT
FANTASY WORLD DIZZY
FULL GAME!
POWER PACK
PLUS
PENGUIN TOWERS
GAME DEMO
COLOUR MIXING

In the editor press:

F1 – to change char colour 1

F2 – to change char colour 2

F3 – to change the interlace colour to char colour 1

F4 – to change the interlace colour to char colour 2

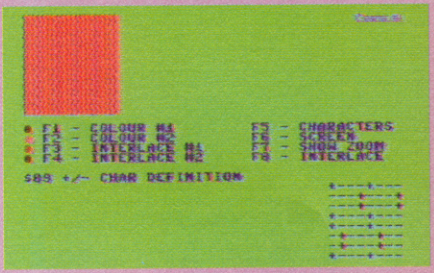
F5 – to change char colours on screen

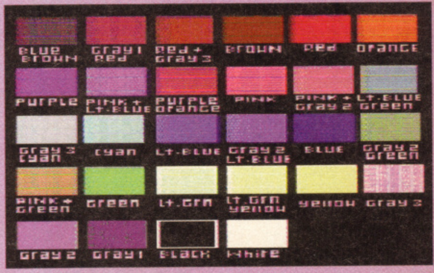
F6 – to change the screen colour

F7 – to show a zoom of the current char definition (+ = set pixels)

F8 – Toggle interlace mode

+/- – To cycle through different character definitions.





This is what you'll find on the covertape – it'll make a bit more sense when you use it.

As I told you earlier, in bitmap mode you lose resolution because the pixels are doubled in width. But when you have two pictures in memory at once you can define the same pixel in two different colours. So when the screens overlap each other by one pixel the two different colours overlap each other also, giving the impression of high resolution pixels, ie, normal width because the double width pixels are overlapping each other by one pixel, giving you better definition on your picture. This can also be combined with FLI to give you all those extra colours per character as well.

The other advantage you get with interlacing is that you can create new colours as well because the screen flips between the two pictures so quickly certain colours will appear to merge. You can also colour-mix horizontally as well as vertically.

The third part of the covertape demo gives you a chart of some of the many colours you can achieve by interlacing. Owing to the fact that you are swapping between pictures you will always encounter some flicker, but once you get used to it, you hardly notice.

BLUE MOON

And finally, before I leave you all to go and play with the mixing program I would like to say a big thank you to Ewen Gillies for bogging off at the last minute and leaving me to write the article. I always thought it was the boss who was supposed to sit around all day and do nothing. To the bar.

IF YOU LOVE CF THEN STICK WITH

Future PUBLISHING

Whatever other computer you use, and whatever you use it for, you can bet that Future Publishing has got the best magazines to suit your needs...

AMIGA MAGS

AMIGA FORMAT

Amiga Format issue 63 (the October issue) is another stonking issue of the UK's biggest computer magazine! 164 lovingly hand-crafted pages full of Amiga news, reviews and features. This month we cover DTP, with £100 program *PageSetter 2* on the coverdisk, and a huge 7-page feature on Amiga DTP. And *AF* has the first full review of *Amiga Theme Park*! Got an Amiga? Get Formatted. **£3.95 with TWO coverdisks**

AMIGA SHOPPER

The October issue of *Amiga Shopper* is jolly fab. Our comprehensive supertest will tell you everything you'll ever need to know about expanding your A1200. Plus we give you the full lowdown on how to program in Assembler and the first installment in our new series on how to write your own chess program. Hurrah! **£2.50**

AMIGA POWER

The tenth Amiga Power of 1994 is (toot toot toot tooooot...) a THREE DISK SPECIAL! With demos of *Theme Park, Alien Breed 2: Tower Assault, Bubble and Squeak* and *Ruff 'n' Tumble*, there was simply too much to fit onto two disks, so we've had to stick on an extra one. And! Inside the magazine, an exclusive review of the incredible *Super Stardust*. **£3.95 with THREE coverdisks**

CONSOLE MAGS

GAMES MASTER

Sega! Nintendo! Amiga! CD-32! 3DO! Jaguar!

October's *Gamesmaster* is a *Lion King* extravaganza, with a totally in-depth look at the game on SNES and Mega Drive, plus a FREE *Lion King* badge and poster. We've also got the first screen shots of *Sonic and Knuckles*, a big review of *Urban Strike*, one of the best 3D0 titles yet, and a look at how CD interactive movies are made. You can't afford to miss it. **£2.25**

SEGA POWER

The October issue of *Sega Power* is swelling with an oozing stuffing of stunningly erudite, critically caustic, ultra-topical Sega-related stuff (as ever). Exclusive reviews of *Urban Strike* and *Taz 2*, a massive guide to *Super Streetfighter 2*, the making of a game (in Hong Kong, no less, none of that 'software house down the road nonsense for us) and an update on the progress of wonder-machine, Saturn. It's **£2.50**. It's out on Thursday, 1st September. BUY IT!

TOTAL!

October's TOTAL will feature a six-page feature on the brilliant new *Super Return Of The Jedi*. As well as this we're giving away a free *Super Street Fighter 2* sticker album and stickers. There's also more news, previews and reviews than you can wave a stick at as well as an obscenely large tips section featuring three player's guides. Phwoar! **£2.50**

Super PLAY

Want to find out about the best role-playing game ever to hit a console? Then the October issue of *Super Play*'s the mag you need. Plus, a guide to the anime scene. *Mortal Kombat 2* hits the SNES full-bloodedly! Super Street Fighter 2 gets the full guide treatment! It's all in *Super Play*. **£2.50**

BRITAINS BEST-SELLING ST MAGAZINE

ST FORMAT

GOING FOR GOLD! Each and every FORMAT Gold winner ever rounded up, re-rated and located – so you can get the very best games, applications, utilities and hardware for your machine! If you've got an ST then you owe it to yourself to get hold of October's *ST FORMAT*. Henry Kelly would approve! **£3.50 plus coverdisk**

CD-ROM Today

In the October issue of Future's smash hit, revolutionary CD ROM mag... Woodstock on CD-ROM, multimedia authoring packages, plus the newest titles for kids. We've also redesigned our unbeatable cover disc, which is once again packed with interactive demos of the latest CD software and competitions. Don't miss it! **£4.95 with CD ROM**

MACFORMAT

The UK's biggest-selling Mac magazine has this on offer in October – give your Mac the power to take you into the 21st Century! • Presentation programs – create a slideshow or a multimedia event • What a sequencer can do for your Mac-based music making • How to achieve airbrush effects in your Mac art program • Plus MacFormat's regular coverage of just about everything you can do with a Mac. **£3.95 with coverdisks, or £4.95 with CD ROM**

PC MAGS

PC GAMER

October's *PC Gamer* is the best yet. We visit top American developers LucasArts and report on their latest games, there's the world's first review of *Doom 2*, a profile of Doom's producers id Software, a free 16 page CD-ROM supplement and an exclusive covermounted CD demo of World War I flight sim *Dawn Patrol*. **£3.95 with 2 coverdisks**

PC FORMAT

You wanna know what's in October's *PCF*? Right, deep breath, here goes: H-U-G-E music/sound feature including reviews on music software for the beginner/intermediate/professional and round-ups of sound cards and speakers. Two disks featuring huge playable demos of *Dawn Patrol* and *Jazz Jack Rabbit* – the hottest PC games around. A first look at *Klick'n'Play*, the excellent new create-your-own-games package. Reviews of *Microsoft Space Simulator, Desert Strike, NHL Hockey*. Erm, lots more but no room left...
£3.95 with coverdisks, or £4.95 with CD ROM

PC Answers

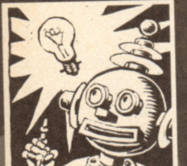
Get the most out of your PC at home

PC Answers takes the world by storm in October with its first ever CD-ROM attached to the cover featuring *Illuminatus 2, Zool 2, Desert Strike* and the best shareware games ever. Inside the mag you can discover how to upgrade your old slow 386 to a super fast 486 – or even a Pentium, but without having to buy a new machine! All this and plenty more in the November issue of *PC Answers*, out on sale Thursday 29 September. **£3.95 with coverdisks, or £4.95 with CD ROM.**

ON SALE NOW AT YOUR LOCAL NEWSAGENT!

TECHIE TIPS

The deep, dark, complex mysteries of the C64 are once again exposed as Jason Finch opens up the tomb of ignorance and sheds some light on your techie queries (who writes this stuff? – Dave).



TRICKY SITUATION

Dear Techie Tips,

1 How do you trick the computer into thinking that the SHIFT and RUN/STOP keys have been pressed?

2 How do you go about stopping people from switching to upper case mode or lower case mode by pressing the SHIFT and Commodore keys?

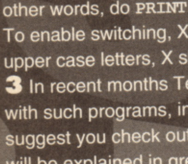
3 Please could you write a program in machine code which will scroll anything across the bottom of the screen.

Keith Hart, Wigston.

1 To trick the computer into thinking anything has been pressed, you have to stuff some information in the keyboard buffer and then tell the computer it is there. The keyboard buffer is basically 10 bytes of memory starting at location 631. The code for the SHIFT and RUN/STOP sequence is 131. Therefore, leave your program by giving the commands `POKE 631,131:POKE 198,1:END` and you should find that things work wonderfully.

2 There are four `CHR$` codes associated with cases. You make them take effect by entering `PRINT CHR$(X)` where X is the number of the code. To stop people switching between cases, X should be 8. In other words, do `PRINT CHR$(8)` within your program. To enable switching, X should be 9. To select lower or upper case letters, X should be 14 or 142 respectively.

3 In recent months Techie Tips has been overrun with such programs, in Basic and machine code. I suggest you check out recent issues and everything will be explained in great detail. **Jason**



FREAKY FREQUENCY

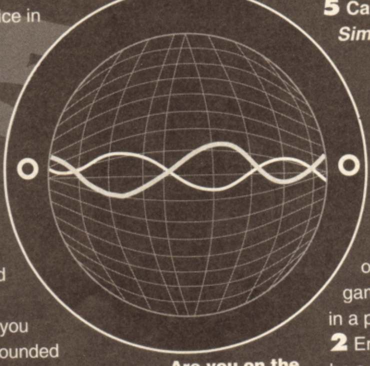
Dear Techie Tips,

Please print a Basic program which produces a 2600Hz tone and a 2280Hz tone.

Andrew Campbell, Hastings.

Congratulations! You win the prize for the most odd question ever to be scribbled on a piece of paper the size of a till receipt. And your prize is – this reply to your query. To generate a tone on the C64 you have to divide the frequency by 0.05961 and round up to the nearest one. You then need to store this value in the frequency locations for the appropriate voice in the SID chip.

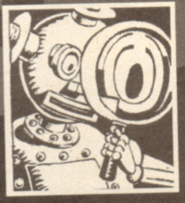
What has 0.05961 got to do with anything? A very good question, the answer to which escapes me. The following short program will sound two tones simultaneously. If you want them to be sounded separately, editing the program shouldn't prove too difficult. The values for F1 and F2 in line 180 are the frequencies in Hertz. Anyone else can use this same program to generate tones – either single or multiple ones – with relative ease.



Are you on the right wavelength? Or do you keep losing this frequency?

```
100 REM FREAKY FREQUENCY BY J.FINCH
110 S=54272 :REM SOUND CHIP
120 M=0.05961:REM FREQ CONVERSION
130 POKE S+4,16: POKE S+11,16
140 POKE S+5,0: POKE S+12,0
150 POKE S+6,240:POKE S+13,240
160 POKE S+23,0: POKE S+24,15
170 :
180 F1=2600:F2=2280:REM FREQ IN HERTZ
190 REM CALCULATE AND SOUND FIRST TONE
200 FQ=INT(F1/M+0.5)
210 POKE S,(FQ/256-INT(FQ/256))*256
220 POKE S+1,INT(FQ/256)
230 POKE S+4,17
240 :
250 REM CALCULATE AND SOUND SECOND TONE
260 FQ=INT(F2/M+0.5)
270 POKE S+7,(FQ/256-INT(FQ/256))*256
280 POKE S+8,INT(FQ/256)
290 POKE S+11,17
300 :
310 PRINT "PRESS A KEY FOR SILENCE"
320 GET A$:IF A$="" THEN 320
330 :
340 REM MUTE TONES
350 POKE S+4,16:POKE S+11,16
```

Just one thing – I'd love to know why you need to know how to do this. **Jason**



CODED LISTS

Dear Techie Tips,

1 Do you think that I should get a disk drive?

2 I am creating a football game and I have got to the stage where the groups need to be drawn. How do you do it? Could I have some sort of listing, please?

3 A friend of mine told me there was a code (obviously a POKE) that enabled you to stop anyone from listing a program. He showed it to me working but he forgot to tell me the code. When he listed a program it just showed you the line numbers. Do you know the code?

4 I am a sucker for listing games. Every time I get bored with a game I see if I can list it but it always goes back to boring Basic. How on earth can I get these games to list?

5 Can I see what you look like?

Simon Lamb, Gourock, Scotland.

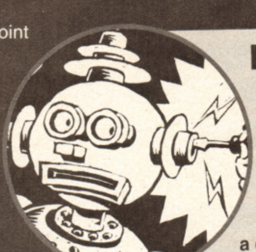
1 Almost certainly. Save up and buy one. No home should be without one. A disk drive is for life, not just for Christmas. And any other cliché you can think of. You should be able to get hold of a second-hand 1541 pretty cheaply and when you've got it connected up and working you will wonder how you ever managed without one. And just think of all those multiload disk games and demos you'll be able to check out. Bliss in a plastic box.

2 Erm, someone who's into Take That can't possibly be a footie fan as well so I'm afraid you're going to have to tell me a bit more than what stage you're at. I couldn't tell you how the groups are drawn in real life, let alone on a C64. Well I can, but that's only because I watch too much breakfast television. You need the random generator function `X=INT(RND(1)*N)+1` where N is the highest random number to be generated. Use an array to check if this number has already been created. If it hasn't, assign the relevant team name to the current position in the group table. Pick another random number and assign the corresponding team to the next position and so on until all teams have been done.

3 There are millions of different ways to prevent people listing your programs. Well, I may be exaggerating slightly; but there are certainly a couple. The best way is to alter the Basic `LIST` vector at locations 774 and 775. Normally, when you enter `LIST`, the computer immediately jumps to $A71A (the address pointed to by the vector at 774 and 775) and executes a short piece of machine code. If you change the contents of 774 to, say, zero by doing `POKE 774,0` then the computer will instead jump to $A700. That in itself is irrelevant; the point is that you'll only get line numbers.

4 If they're Basic, and assuming you have an AR cartridge, try entering OLD before you type LIST. If they're machine code you'll need to use the monitor and have an understanding of machine code.

5 This isn't one of those cheap dating services, you know. (*Actually we did print a picture of the techie maestro in this section a couple of issues back, but it didn't exactly catch Jason at what you would call his most flattering – Dave.*) Ah, I wish you hadn't mentioned that. **Jason**



NO EYED DEER

Dear Techie Tips,

1 In a questionnaire on the C64, if you put in "input wait till Y or N is pressed" it doesn't work. Any ideas?

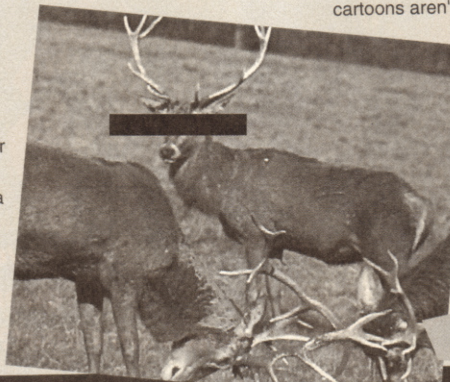
2 Do you have any ideas for a cartoon?

Ryan Cirigliano, Vale, Guernsey.

1 Well the title of this letter comes from that old and unfunny joke that starts off "What do you call a reindeer that hasn't got any eyes?". Basically, although I'm not a reindeer, I don't have the faintest idea what you're going on about. I will make a wild shot in the dark and say check this proglet out:

```
10 PRINT "PRESS Y OR N"
20 GET A$
30 IF A$="Y" THEN PRINT "YES":END
40 IF A$="N" THEN PRINT "NO":END
50 GOTO 20
```

2 Plenty. I was even thinking of turning this really cool cartoon into a feature length film (but, despite the reindeer references, it wasn't *Bambi*). But then I thought it would turn out really naff because cartoons aren't the sort of thing that work with real actors. And I'd probably spend too much time thinking about the special effects and not enough on the storyline. Would you like to go bowling, Fred? **Jason**



I've got no idea what he's going on about.

SLIPPED DISK

Dear Techie Tips,

1 Is it possible to erase a single file on a disk without erasing the rest of the files? If so, could you please tell me how to do it.

2 Is there a limit to how many files a disk can hold even if there are blocks free?

3 On the back of my disk drive I have noticed two little white switches marked "Device". What should these be set at?

4 Is it okay to take my C64 and disk drive to bits to wipe out all of the dust that is inside them?

David Proudlock, Dumfries.

1 You need the scratch instruction. Give the following three commands from Basic:

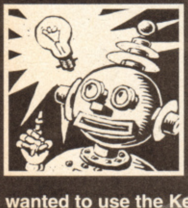
```
OPEN 15,8,15
PRINT#15,"S0:FILENAME"
CLOSE 15
```

Obviously you must substitute the word FILENAME with the name of the program you want to delete.

2 A 5.25-inch disk can hold up to 144 files. This limit is due to the fact that the area on track 18 for holding directory entries is limited to 18 sectors, and each one holds only eight entries.

3 Leave them as they are. They tell the drive whether it is to operate as device eight, nine, ten or eleven. You can experiment with the switches if you like; keep changing the combination until `LOAD"$",9` will get you the directory of a disk in the drive. This setting has made your disk drive device number nine. This is used when you connect more than one drive to your C64.

4 You can do, but you must be very careful. Also, opening up any electronic gadgets normally means that you void any warranty that you may have. Therefore if it was bought from new and you've had it less than a year, opening it up is not really recommended. Be extremely careful with the electronic components; they are easily damaged by static electricity from your fingers. **Jason**



MANAGING MEMORY

Dear Techie Tips,

1 When you are programming in machine code, can you always use all 64K of memory or if you wanted to use the Kernal routines would you only be able to use memory $0000-$E000? I have been looking at the memory management section of the Programmers' Reference Guide and I've been trying to sort this problem out. I didn't make much sense of what it said, so can you help?

2 What are the main differences between the C64 and the C128?

3 What exactly does the USR command do?

David Ivall, Swanage.

1 Memory management is a very difficult thing to explain. It's best if you experiment. If you read from a memory location you will always read a value from ROM if there is any there. Like a normal `LDA $A000` will read in the first value of the Interpreter ROM, and likewise `LDA $E000` the first location of Kernal ROM. If you switch the Kernal ROM out by altering location 1, you can then do an `LDA $E000` and get at the RAM. Assuming you switch it back in by restoring location 1 before you use a Kernal routine then everything will be fine. Try storing character sets or bitmaps in areas of ROM. Then you don't need to worry about complicated issues such as memory switching.

2 The biggest difference is that the C128 has more memory. People think this means you can write bigger programs. That is true to some extent, but the way the memory is laid out means it's not the case in practice; you simply have more room to store variables. Also, the C128 has an 80 column mode and a CP/M mode of operating. It has a larger keyboard with a numeric keypad. It also has Basic 7, a more advanced version of the C64's Basic. Sound

SELF ASSEMBLY

Dear Techie Tips,

1 The *6510+ Assembler* always starts assembling from address 828, but because my routine is long it overruns into the screen memory which starts at 1024. How can I tell it to start assembling at a later address; for example 12000?

2 How can I create labels in the unassembled listing so that I can branch to labels rather than working out the address needed?

3 Can I revert back to ordinary C64 Basic while still keeping *6510+* in memory?

Peter North, Shoreham-by-Sea.

1 The variable "*" controls the address at which programs are assembled; it can be changed at any point in the source code to change the assembly address of the code that follows it. Make the first line of your program `10 *=12000` if you want to begin assembling from location 12000.

2 Simply put them before an instruction, or on a line of their own followed by a space and a semi-colon as shown below. After assembly, use the TABLE command to list the labels used by the source program.

```
10 *=49152
20 LDX #0
30 LOOP ;
40 STX 53280
50 INX
60 BNE LOOP
70 RTS
```

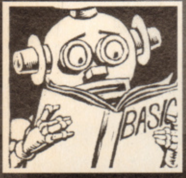
3 Not very reliably, no. This is because *6510+* has some sophisticated way of handling variables and when you try to carry out normal Basic instructions, the computer gets very confused. **Jason**

COMMODORE FORMAT
FULL GAME
REPTON 3
POWER PLUS PACK
TECHIE TIPS
MAYHEM MEGAMIX Part 2
SPEECH
6510 + ASSEMBLER

You want an Assembler? Then order *CF45* now from Back Issues to get *6510+*.

and graphics commands are available, together with useful features such as `RENUMBER` and `DO..UNTIL` loops. However, very little software was ever created for the machine so it is best to stick with the C64.

3 The `USR` command allows you to pass values from Basic to machine code. You must change the values in locations 784 and 785 to point to your machine code routine. Then, if you do `B=USR(5)` from Basic, the computer will jump to your machine code routine and will store the value 5 in the accumulator. When it hits an RTS instruction, the value left in the accumulator will be stored back into the Basic variable B. **Jason**



MONITORING SUCCESS

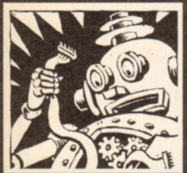
Dear Techie Tips,

1 I recently obtained an old C128D and, having always used a TV set with my C64, would like to purchase a colour monitor for use with the C128's 80 column chip. The Commodore 1084S appears to be the most easily obtainable monitor at present, but I am not sure if it is compatible with the C128.

Would any RGB monitor work, or will I have to look for a second hand 1902 monitor? Please give me some advice.

Paul Gander, Gosport.

The 1084S is the best option, but any old RGB monitor should do the trick, assuming it has a 9-pin D-type socket for operating in digital RGB mode. If it only does analogue RGB then forget it. It may be useful to know that the C128D expects the 9-pins to be arranged with pins 1 and 2 grounded, pins 3 to 6 being Red, Green, Blue and Intensity, pin 7 being Monochrome and pins 8 and 9 being the Horizontal and Vertical Sync respectively. **Jason**



I/O, I/O IT'S OFF TO WORK WE GO...

Dear Techie Tips,

Please could you give me some information on the I/O ports on the C64. What are they used for? How do you access these ports using POKEs?

I have also heard that you can make your own electronic things and plug them into a port and then control them from the C64. Is this true?

Carl Beeson, Preston.

All computers, whether they fly aircraft or operate washing machines, have to be able to accept input. On the C64, in addition to the joystick and keyboard ports, there are six other I/O sockets (although some models have more). The ones common to all C64s/C128s are the expansion post (for carts, MIDI interfaces, etc), the RF socket (for connecting the C64 to a television), the video connector (for adding monitors), the serial port (mainly for Commodore disk drives and printers), the cassette port (we'll leave that one to your imagination) and the user port. The user port is basically an 8-bit parallel interface and is the best one to use for connecting your own electronic projects. Each of these ports can be set to send or receive data using PEEK and POKE statements.

How do you program them? Er, well that's a bit of a biggie, actually. It's certainly too wide-ranging to go into here, unfortunately – it's a bit like asking how do you program in Machine Code. You either need to go out buy a book on programming on the C64 (you can still get a few new from Computer Manuals on ☎ 021 706 6000) or for me to do a whole series on the subject in *CF*. (*Hang on – you're dropping hints again, aren't you, Jason? I take it you reckon you can wrangle some more freelance work out of me – Dave.*) (*Er, well it had crossed my mind – Jason.*) (*Hmm, we'll see – Dave*).

And there we must leave the Techie Tips for this month. But be here in 30 days for a special, Golden Anniversary celebratory techie section, in which I'll be running through 50, yep, 50 top tips for computing with your C64. You can't afford to miss it. **CF**

CHECK THE REPLAY

Dear Techie Tips,

1 A friend of mine (Hi Dan!) recently bought a whole load of multiload games. How would I go about using my Action Replay cartridge to make back-up copies of these games?

2 I noticed in *CF* that some POKEs for infinite energy and so on go like this: `POKE 56248,0`. How are these POKEs found? The Pokefinder in the AR cartridge can only find POKEs ending in 165, 173, 181 or 189. If I cannot get these type of POKEs with the AR cartridge then could you please print a program that can?

3 When I enter the monitor on the AR cartridge and then restart a game, every time I refreeze the game I automatically enter the monitor. Can I stop this from happening?

4 In the ROM memory of Fastload at $85F1 there is a command called ZAP. Could you please explain what this command does?

5 What format do I save pictures to with the screen saver in the AR cartridge if I want to use them in *Saracen Paint*? And can I load screens made in *Saracen Paint* into games using the AR cartridge?

6 On Power Pack game loading screens there is a clock in the bottom left corner of the screen. How is this done?

Anto May, Dublin.

1 Why on earth would YOU want to make back-up copies of HIS games? It's illegal, and I'm sure you don't want to become a software pirate, do you (I hope that sounded threatening enough). Anyway, there is no option with the stand-alone AR cartridge for backing-up multiload games, so even if you wanted to indulge in such dodgy practices you couldn't. Remember, computer piracy was a major culprit in convincing the big software companies to pull out of the 8-bit market.

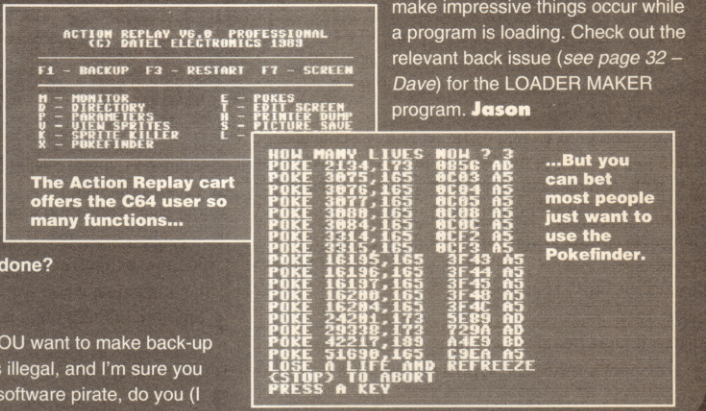
2 To work out a lot of POKE codes, the illustrious hackers have to sift through mounds of game code and work them out for themselves. No program will do the trick all the time.

3 No. But it's simply a matter of pressing X and then hitting the Return key to return to the Freeze menu.

4 It zaps your C64's circuit boards. Only joking. From what I can tell it doesn't actually do anything; it's a redundant command that never got implemented, more's the pity.

5 *Saracen Paint* piccies are not supported at all by the Action Replay cartridge. You would need to save them out as, say, *Advanced Art Studio* files and then write a program that shifted the bitmap, screen and colour memory data around to fit the *Saracen Paint* format which was detailed in *CF* a short while back.

6 Another thing that was explained in great depth in a *CF* of yesteryear was loading routines and how to make impressive things occur while a program is loading. Check out the relevant back issue (*see page 32 – Dave*) for the LOADER MAKER program. **Jason**

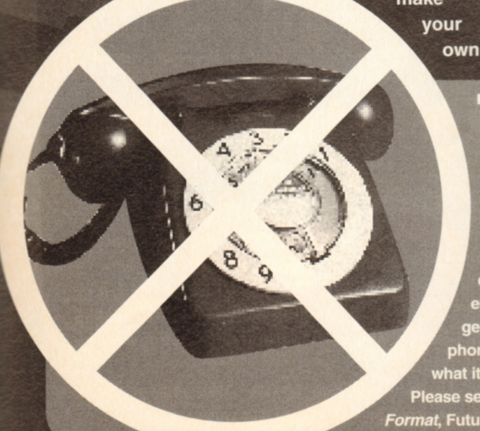


```
      ACTION REPLAY V6.0  PROFESSIONAL
        (C) DATEL ELECTRONICS 1989

F1 - BACKUP  F3 - RESTART  F7 - SCREEN

M - MONITOR            E - POKES
D - DIRECTORY          T - EDIT SCREEN
P - PARAMETERS         H - PRINTER DUMP
V - VIEW SPRITES       S - PICTURE SAVE
K - SPRITE KILLER      L -
X - POKEFINDER
```

The Action Replay cart offers the C64 user so many functions...

```
HOW MANY LIVES NOW ? 3
POKE 2134,173  0856 AD
POKE 3075,165  0C03 A5
POKE 3076,165  0C04 A5
POKE 3077,165  0C05 A5
POKE 3080,165  0C08 A5
POKE 3084,165  0C0C A5
POKE 3314,165  0CF2 A5
POKE 3315,165  0CF3 A5
POKE 16195,165  3F43 A5
POKE 16196,165  3F44 A5
POKE 16197,165  3F45 A5
POKE 16200,165  3F48 A5
POKE 16204,165  3F4C A5
POKE 24201,173  5E89 AD
POKE 29338,173  729A AD
POKE 42217,189  A4E9 BD
POKE 51690,165  C9EA A5
LOSE A LIFE AND REFREEZE
<STOP> TO ABORT
PRESS A KEY
```

...But you can bet most people just want to use the Pokefinder.



TECHIE QUERIES – DON'T CALL US

If you have any technical queries about your CPC, the only person on the magazine that can help you is Jason Finch, and he can only be contacted by post as he does not work in the *CF* office. If you phone up the office there is no-one here that can help you – as much as we'd like to, we simply aren't brainy enough – and it prevents an already overstretched team from getting on with the job of producing the magazine. In fact, if you phone the office all you'll get is an answerphone message telling what it says here, so there's no point in wasting your phone bill.

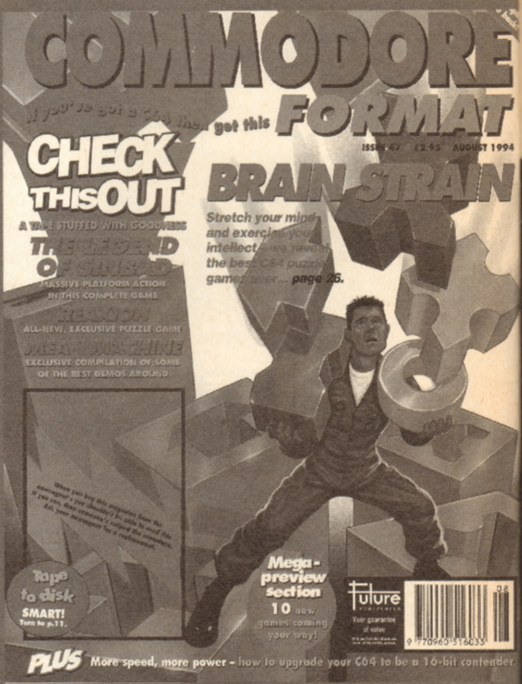
Please send all techie queries BY POST to: Techie Tips, *Commodore Format*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

All these issues of Commodore Format are still available and now you can get them for cheaper than ever before!

BACK ISSUES

YEP! FOUR YEARS OLD AND STILL GOING STRONG...
COMMODORE FORMAT
If you've got a C64 then get this
ISSUE 48 £2.95 SEPTEMBER 1994
CHECK THIS OUT
THIS MONTH'S CRAMMED-TO-OVERLOAD POWERPACK FEATURES...
TILT
A SERIOUSLY PERPLEXING CORKER OF A PUZZLER
CITY BOMBER
EXCLUSIVE DEMO OF VISUALIZE'S LATEST BLASTERAMA
REPEL • WIZARD'S PET
TWO TOP-NOTCH PD SHOOT-'EM-UPS
BLITZKRIEG
Lions of the Universe spearheads the German invasion of the UK C64 scene with some stunning shoot-'em-up action. We give it the full powertest treatment.
Tape to disk SMART! Turn to p.11.
ALSO REVIEWED: BOBIX • SUPER NIBBLY • OSTFRIESLAND GAMES
PLUS Compo: Got a great game idea? We give you the chance to turn it into a reality.

CF17 Power Pack games: *Cyberdyne Warrior, Battle Valley, Sensitive, Indy Heat demo.* Reviews: *First Samurai, Creatures 2, Neighbours Space Gun.* Gamebusters: *Smash TV, Rodland, Knightmare.*
CF19 Power Pack games: *Attack of the Mutant Camels, Sheep In Space, Aquablaster.* Reviews: *Catalypse, The Jetsons, Super Seymour, Winter Super Sports.* Gamebusters: *Cyberdyne Warrior, Hudson Hawk.*
CF20 Power Pack games: *Maze Mania, Ant Attack, Catalypse demo, Bod Squad demo.* Reviews: *Space Crusade, Stryker, Q10 Tankbuster.* Gamebusters: *Dizzy Prince of the Yolkfolk, Hudson Hawk, Spellbound Dizzy.*
CF22 Power Pack games: *Hover Bovver, Agent Orange.* Demos: *James Pond 2, DJ Puff.* Reviews: *Euro Football Challenge, Dylan Dog, Bug Bomber.* Gamebusters: *Murray Mouse Rainbow Islands.*
CF23 Power Pack games: *Defenders of The Earth, Johnny Reb 2.* Demos: *Bug Bomber, Nobby The Aardvark, Biff.* Reviews: *Cool Croc Twins, Turbo The Tortoise, Xenomporph.* Gamebusters: *Maze Mania, Rainbow Islands, Super Seymour.*
CF24 Power Pack games: *Famous Five.* Demos: *Ugh!, Cool Croc Twins, Match of the Day, Fuzzball* (never released). Reviews: *Mega Sports, Ugh!, Elvira 2, Hagar The Horrible, Nobby The Aardvark.* Gamebusters: *Space Crusade.* Specials: Getting the most out of your datassette (a popular one this), Typing in listings.
CF26 Power Pack: *Twin Tiger, Cosmic Causeway, Bomber.* Demos: *Stuntman Seymour, Doc Croc.* Reviews: *Stuntman Seymour, Super All-Stars,Popeye 3.* Gamebusters: *Space Crusade, DJ Puff.* Specials: First part of Let's Make A Monster.
CF27 Power Pack games: *Deflektor, Alternative World Games, The Muncher.* Demo: *Sceptre of Baghdad.* Reviews: *Crystal Kingdom Dizzy, Bully's Sporting Darts, Crazy Cars, Locomotion.* Gamebusters: 13-page *Creatures 2* special.
CF29 Power Pack games: *Herobotix, Battleships, Highway Encounter.* Demo: *Carnage.* Gamebusters: *Winter Camp, Spellbound Dizzy, Batman – The Caped Crusader.* Reviews: *WWF European Rampage, Sceptre of Baghdad, Playdays, Magic Rufus, Dalek Attack, Street Fighter 2, Superstar Seymour, Lethal Weapon.*
CF30 Power Pack games: *Slayer, Rebounder, Daedalus, Blackjack 21.* Gamebusters: *Creatures, Reckless Rufus, Winter Camp.* Reviews: *Carnage, Gladiators, Football Manager 3, Spelling Fair.* Specials: Writing good *SEUCK* games.
CF31 Power Pack games: *Cauldron 2, Snare, Subterranea, Monster Mash.* Demo: *Arnie 2.* Gamebusters: *Stuntman Seymour, Dalek Attack, Crystal Kingdom Dizzy.* Reviews: *McDonaldland, Table Tennis, Snare.* Specials: Football management sims.
CF32 Power Pack games: *Thrust, Steel, Corya.* Full Utility: *FROST* (sprite designer). Gamebusters: *Stuntman Seymour, Lethal Weapon, Dalek Attack, Wild West Seymour.* Reviews: *ARNIE 2, Fist Fighter, Trolls.* Specials: Shoot-'Em-Ups.
CF33 Power Pack games: *Snackman, ATA, Water Polo, Corya 2.* Gamebusters: *Lethal Weapon, Thrust.* Reviews: *Sleepwalker, Robin Hood, WWF, Robocod, Darkman, 4-Most World Sports.*
CF34 Power Pack games: *Arac, Corya 3, Shellshock.* Gamebusters: *Lethal Weapon, The Simpsons. Argon Factor, Addams Family, Liverpool.* 24-page special: The best C64 games still available.
CF35 Power Pack games: *Space Academy, Hallax.* Demo: *Lemmings.* Gamebusters: *Last Ninja 1,2 & 3.* Reviews: *Suburban Commando, Pirates, Mercs, Turbocharge.* Specials: The 64SX, Ultimate Beat-'Em-Up.
CF36 Power Pack games: *Starray, Squibbly Skwob.* Demos: *Suburban Commando, Breakthrough.* Gamebusters: *The Simpsons, Carnage, Street Fighter 2, Lethal Weapon, Cool World.* Review: *Bee 52.* Specials: Ultimate Flight Sim, Inside Your C64.
CF38 Power Pack games: *Lifeforce, Freddy Hardest, Jailbreak.* Demo: *Mayhem In Monsterland.* Gamebusters: *The Simpsons, Nebulus, Suburban Commando, Castle Master, Game Over, Nobby The Aardvark, SF 2, Bee 52.* Review: *Mayhem.*
CF39 Power Pack games: *Freddy Hardest Part 2, Deep Strike, Volcan, Robber.* Gamebusters: *Simpsons* (yawn), *Nebulus, Suburban Commando, Castle Master, SF2, Nobby.* Reviews: *Lemmings.* Special: The Apex Boyz show you how to design games.
CF40 Power Pack games: *Jocky Wilson's Darts, IO, Interword.* Gamebusters: *Mayhem, Suburban Commando.* Specials: Microdrives.
CF41 Power Pack games: *Future Knight, Vengeance.* Gamebusters: *Dizzy, Nobby The Aardvark, Mayhem, Volcan.* Specials: Essential EDOS – loadsareviews.
CF42 Power Pack games: *Stormlord, Deliverance.* Gamebusters: *Dizzy, Prince of the Yolk Folk, IO, Seymour Goes To Hollywood, Nobby The Aardvark, Sceptre of Baghdad.* Special: The best and worse games ever.
CF43 Power Pack games: Reader games extravaganza. Gamebusters: *Mayhem, Nobby, Future Knight.* Specials: How to make your games scroll, A-Z of sports sims, The return of Secret of *SUECK*cess.
CF44 Power Pack: *Carnage, Mayhem Mega MIx Part 1.* Gamebusters: *Mayhem, Nobby, Future Knight.* Reviews: *Penguin Tower, Archetype, Time Crystal.* Specials: Making music, PD library list, diary of a game: 10th Dan.
CF45 Power Pack: *Repton 3, Speech* (synthesiser), *Mayhem MegaMix Part 2,* 6510+ Assembler. Gamebusters: *Stormlord, Nobby, Mayhem.* Specials: Multi-player games, Electric Boys interviewed, how to draw better graphics.
CF46 Power Pack: *Bonecruncher,* Complete level of *Mayhem, Quadraped Tearaways* music demo. Gamebusters: Final level of *Mayhem, Stormlord, Wizball, Carnage.* Reviews: *Squarescape, Escape From Arth, Wilberforce.*
CF47 Power Pack: *The Legend of Sinbad, Reaxion, Mean Machine* demos. Gamebusters: *Sleepwalker.* Previews: loads of new games from Germany, including *Super Nibbly* and *Lords of the Universe.* Special: the best puzzle games for the C64.
CF48 Power Pack: *Tilt (CodeMasters), City Bomber demo, Repel, Wizard's Pet..* Gamebusters: *First Samurai.* Reviews: *Lions of the Universe, Bobix, Super Nibbly.*


COMMODORE FORMAT
If you've got a C64 then get this
ISSUE 47 £2.95 AUGUST 1994
CHECK THIS OUT
A TAPE STUFFED WITH GOODNESS
THE LEGEND OF SINBAD
MASSIVE PLATFORM ACTION IN THIS COMPLETE GAME
REAXION
ALL-NEW, EXCLUSIVE PUZZLE GAME
MEAN MACHINE
EXCLUSIVE COMPILATION OF SOME OF THE BEST DEMOS AROUND
BRAIN STRAIN
Stretch your mind and exercise your intellect ... the best C64 puzzle games ever... page 26.
Tape to disk SMART! Turn to p.11.
Mega-preview section 10 new games coming your way!
PLUS More speed, more power - how to upgrade your C64 to be a 16-bit contender.

PLUS: COMMODORE FORMAT BINDERS

Commodore
Com
mod
ore
FORMAT

Just £5.99

CHECK OUT THESE CRAZY PRICES!

1 back issue	£2.50	Save 45p
2 back issues	£4.50	Save £1.40
3 back issues	£6.50	Save £2.35
4 back issues	£7.50	Save £4.30

All extra back issues add £1.50 for each

- Plus £1 for postage and packaging (see coupon for rates outside the UK)
- Orders within the UK do not require a stamp

SPECIAL OFFER – THE MORE YOU BUY, THE MORE YOU SAVE!

COMMODORE FORMAT BACK ISSUES

Name ______________________________

Address ______________________________

____

Post code __________ Phone No ______________________________

Method of payment (*please tick*)

Access ☐ Visa ☐ Cheque ☐ PO ☐

Credit Card No ______________________________ Expiry date __________

POSTAGE AND PACKAGING:

UK £1 ● Europe £2 ● Rest of the world £3

I would like the following back issues...

____

Cost of back issues ______________________________ £☐☐.☐☐

I would like a *Commodore Format* binder* ______________________________ £☐☐.☐☐

Please add price postage and packaging* ______________________________ £☐☐.☐☐

Total cost ______________________________ £☐☐.☐☐

Please make all cheques payable in pounds sterling to Future Publishing Limited, and send the whole lot off to *Commodore Format* Back Issues, Future Publishing, FREEPOST, Somerton, Somerset TA11 7BR.

WIZARD GAMES

1 NORTH MARINE ROAD, SCARBOROUGH,
NORTH YORKSHIRE Y012 7EY. IF YOU'RE IN THE
SCARBOROUGH AREA, COME IN AND SEE US. OPEN
9.00AM - 5.30PM 6 DAYS A WEEK. TEL: 0723 376586

✱ C. 64 CASSETTES ✱

ARCADE TRIVIA QUIZ	2.99
BISMARK/PEGASUS BRIDGE	2.99
BUBBLE BOBBLE	3.75
COLOSSUS BRIDGE	2.50
COLUSSUS MAH JONG	2.50
DALEK ATTACK	4.99
DEFENDERS OF THE EARTH	2.99
EDD THE DUCK	2.99
ENGLAND (FOOTBALL)	3.99
FLINTSTONES	2.99
FOOTBALL MANAGER 2 + EXP KIT	2.99
FOOTBALL MANAGER 3	5.99
FOOTBALL MANAGER WORLD CUP	2.99
FUN SCHOOL 2 6-8 YEARS	3.75
FUN SCHOOL 2 OVER 8	3.75
FUN SCHOOL 2 UNDER 6	3.75
GEMINI WING	2.50
HERO QUEST	3.50
HOB GOBLIN	2.99
JACK NICKLAUS GREATEST 18	3.75
LOTUS ESPRIT	2.99
LOTUS ESPRIT TURBO	2.99
LIVERPOOL	8.99
MINI OFFICE	2.99
NAVY MOVES	3.75
NEIGHBOURS	2.99
NEW ZEALAND STORY	3.75
NICK FALDO CHAMP GOLF	10.99
NORTH AND SOUTH	3.99
PLAYDAYS AGE 3-8 YEARS	5.99
PREDATOR	2.99
RENEGADE	2.99
RAINBOW ISLANDS	3.75
SCRABBLE (NO BOX)	2.50
SCRAMBLED SPIRITS	2.99
SILKWORM	2.50
SIMPSONS	2.99
SNOWBALL IN HELL	2.99
SOOTY'S FUN WITH NUMBERS UP TO 7 YEARS	4.99
SPIKE IN TRANSYLVANIA	3.75
ST DRAGON	2.99
STEG THE SLUG	3.75
STRIKE FORCE HARRIER	1.99
SUBURBAN COMMANDO	7.99
SWITCHBLADE	2.99
TERRY'S BIG ADV/TERRAMEX	2.99
THOMAS THE TANK ENGINE	1.99
THOMAS THE TANK FUN WITH WORDS UP TO 7 YEARS	4.99
TRACK SUIT MANAGER	1.99
TRIVIA	2.99
*DIZZY DOWN THE RAPIDS	3.75
*SPELLBOUND DIZZY	3.75
*DIZZY PRINCE OF THE YOLK FOLK	3.75
TRIVIAL PURSUITS	3.75
TURBO THE TORTOISE	3.75
ULTIMATE GOLF	3.50
VIZ	2.99
WELLTRIS	2.99
WWF	2.99
WWF 2 EUROPEAN RAMPAGE	3.75
XENON	2.50

***Choose any 2 Dizzy's for £5**

GOOFY'S RAILWAY -
COLOURS & SHAPES 2-5 YRS
MICKEY'S RUNAWAY ZOO -
NUMBERS 2-5 YRS
£3.99 EACH OR £6 FOR BOTH

LEMMINGS
CASS 10.99 DISK 12.99

✱ DISK COMPILATIONS ✱

SUPER FIGHTER 6.99
Pit Fighter/WWF/Final Fight
2 HOT 2 HANDLE 6.99
Shadow Warriors/Golden Axe/Total Recall/Super Off Road
HOLLYWOOD COLLECTION 6.99
Ghostbusters 2/Indiana Jones/Robocop/Batman
SPORTS COLLECTION 5.99
Pro Tennis Tour/Run the Gauntlet/World Cup Soccer Italia 90
DREAM TEAM 6.99
Simpsons/WWF/Terminator 2
CHAMPIONS 3.99
J Khan Squash/Manchester United/World Champ Boxing Manager
WIZARD PACK (SPECIAL PRICE) 4.99
Scrabble, Cluedo, Risk (not boxed)
MOVIE PREMIERE 3.99
Turtles/Back to the Future 2/Gremlins 2/Days of Thunder
CLASSICS 6.99
Hunt for Red October 1 And 2/Space Harrier 2/Ollo 2/ Savage Pond/ Time Zone/Glider Rider/Chambers of Shaolin/ Ant Attack/ Scrambled Spirits/Running Man/Mean City/ Deathwake/Pipeline/ Deep Command - Seaside Special plus many more

OUR CHOICE CASSETTES - 10 GAMES FOR £6.00

NEW DISK TITLES

POSTMAN PAT COLLECTION 3.99
POPEYE COLLECTION 3.99
KIDS PACK 1 .... 5.99
Postman Pat/Sooty & Sweep/Count Duckula/Popeye 2/ The Wombles/Super Ted
KIDS PACK 2 .... (NOT BOXED) 5.99
Fireman Sam/Count Duckula 2/Popeye/Postman Pat 2/ Huxley Pig/Bangers & Mash

CHOOSE ANY 3 OF THE FOLLOWING SPORTS TITLES FOR £5.00

THE BOXER, JK SQUASH, LEAGUE FOOTBALL, INT. FOOTBALL, RUGBY COACH, GRAHAM GOUCH CRICKET, SOCCER DOUBLE, SOCCER DOUBLE 2, CRICKET MASTER, EURO BOSS, WORLD BOXING MAN, JIMMY'S SOCCER MAN, THE DOUBLE, WORLD RUGBY, KENNY DALGLISH, CHAMPIONSHIP SPRINT, SOCCER BOSS, FOOTBALL YEAR 2, CHAMP BASEBALL, GRAEME SOUNESS MANAGER, SUPER SCRAMBLE

5¼" disk head cleaning kit......3.50 20 Ex-Software 5¼" disks.........£5.50

✱ C. 64 DISKS ✱

Cool World	4.99
Colossus Bridge	3.99
Colossus Chess	3.99
Colossus Mah Jong	3.99
Doc Croc	3.99
Fruit Machine	3.99
New Zealand Story	4.99
Liverpool	10.99
Scooby Doo & Scrappy Doo	3.99
Space Gun	4.99
Smash T.V.	4.99
Nick Faldo Champ Golf	13.99
North and South	4.99
Die Hard 2	3.99
Football Manager 2 + Exp Kit	4.99
Yogi Bear	3.99
Zam Zara	3.99

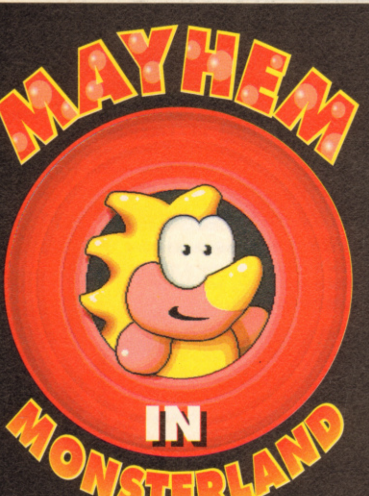
✱ C. 64 Cartridges ✱

Chase H.Q. 11	5.99
Toki	5.99
Robocop 3	5.99
Double Dragon	5.99
Battle Command	5.99
Navy Seals	5.99
Shadow of the Beast	5.99

✱ CASSETTE ✱ COMPILATIONS

POSTMAN PAT COLLECTION 3.99
Postman Pat 1, 2 + 3
POPEYE COLLECTION 3.99
Popeye 1, 2 + 3
KIDS PACK 1 .... 5.99
Postman Pat/Popeye 2/Sooty & Sweep/Wombles/ Super Ted/Count Duckula
KIDS PACK 2 .... 5.99
Fireman Sam/Count Duckula 2/Popeye/Postman Pat 2/ Huxley Pig/Bangers and Mash
BIG BOX 2 (ON CASSETTE OR DISK) 9.99
Delta/Zoids/Barbarian II/Alleykat/Tunnel Vision/Battle Valley
+ many others (30 games in all)
SUPER SPORTS CHALLENGE 5.99
Slicks/Cueboy/1st Division Manager/Wrestling Superstars/ Int Speedway
SMASH 16 .... 5.99
Sky High Stuntman/SAS/KGB Superspy/Super G man Superhero/
MIG 29/Guardian Angel/Ghost Hunter/Robin Hood/Poltergeist/Ninja Massacre/Arcade Flight
THE COLLECTION 6.99
American Football/Agent Orange/Chubby Gristle/Saint + Greavsie/Scrambled Spirits + many more (30 games in all)
100% DYNAMITE 3.99
Double Dragon/Afterburner/Last Ninja 2/WEC Le Mans
SUPER FIGHTER 3.99
Final Flight/Wrestlemania/Pit Fighter
POWER UP 5.50
Altered Beast/X Out/Rainbow Islands/Chase HQ/Turrican
CHAMPIONS 2.99
5 Khan Squash/Man Utd/World Boxing Manager
CLASSIC ARCADIA 2.99
Invaders/Axiens/Muncher (Pacman)/Missile/ Crazy Erbert/Grebit
10 Great Games 3.99
H.A.T.E/Sidearms/Dark Fusion/Road Runner/ Footballer of the Year/Super Scramble/Street Fighter/ Cosmic Causeway/Lineker's Hot Shot
THE DREAM TEAM 3.99
Simpsons/WWF/Terminator 2

GAMES SUBJECT TO AVAILABILITY. PLEASE NOTE - A PHONE CALL RESERVES YOUR ORDER. ORDERS £5.00 AND UNDER ADD 50P P + P
CHEQUES + POSTAL ORDERS MADE PAYABLE TO WIZARD GAMES. OVERSEAS CUSTOMERS ADD £1.00 PER ITEM P+P. PLEASE ALLOW 7 DAYS FOR DELIVERY
SEND SAE FOR FULL LISTS

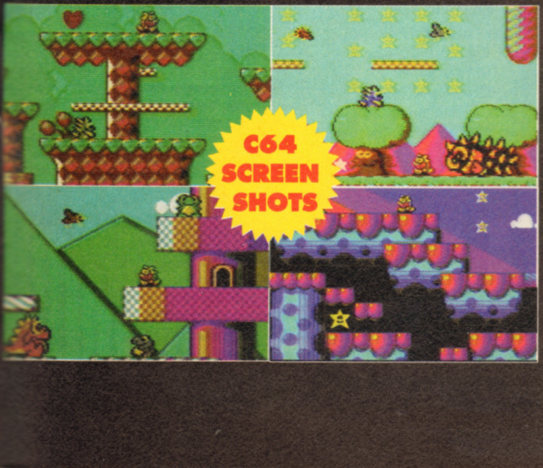


From the makers of Creatures and Creatures 2 comes probably the greatest platform game ever created for the C64; Mayhem in Monsterland is an intriguing blend of fast, frenetic platform action, with five wickedly cute levels to explore. Featuring the cutest dinosaur ever to emerge from the Jurassic period, you'll soon forget all about Italian plumbers and spikey blue hedgehogs.

It's a Corker!

- ★ First video game to receive 100% ★
- ★ Super-fast full screen scrolling ★
- ★ Fully interactive soundtrack & SFX ★
- ★ Amazingly detailed graphics ★
- ★ New non-standard colours ★
- ★ Not available in ANY shops ★

COMMODORE FORCE HURRICANE HIT!



PLEASE SEND ME MAYHEM IN MONSTERLAND (TICK RELEVANT BOX)
☐ CASSETTE £8.99 ☐ DISK £9.99 **PRICES INCLUDE P&P**

Send to: Apex Computer Productions Ltd., PO BOX 100, South Ockendon, Essex, RM15 5HD. Please enclose a cheque/postal order made payable to **APEX COMPUTER PRODUCTIONS LTD.** Allow up to 28 days for delivery.

NAME..
ADDRESS..
....
....
POST CODE......................

A FAMILY AFFAIR

Or, where have I see that game before? Tony Mott traces the roots of console shoot-'em-ups back to the C64 and wonders if things have changed much...

Pick a genre. Any genre. Go on. Done that? I'll bet most of you plumped for the good old shoot-'em-up didn't you? No? Ah. Okay, let's pretend you did, because otherwise I'm stuffed from the outset. I picked the shoot-'em-up because it's the most popular and well-known type of computer game. Let's face it, up until the Mario/Sonic boom (if you'll pardon the pun) there were still many thousands of uninitiated folk referring to *any* video game as *Space Invaders*, right? So shoot-'em-ups, it is.

FIREPOWER

But before we attempt any cross-comparisons or anything we'll have to lay down what actually constitutes a shoot-'em-up. It's a game where progress is dictated primarily by the player's ability to remove opposing bodies from the gameplaying area by the employment of some form of firepower (source: *Tony's Titanic Tome of Videogame Terms*, now sadly out of print). Most of the games under scrutiny here are straight blasters – all-out gunfests with little or no piffling plot details to worry about – but there are instances where there is a degree of crossover. I recognise this, so don't all write in and complain that the action in *Starquake* or whatever is platform-led. I know, but feel that we need to broaden our outlook if we really are to appreciate the plagiarism (or perhaps otherwise) which exists within modern day console videogames. So, um, there.

Let's begin at the start, then, and *Space Invaders* itself. There were actually blasters around before this (Exidy's crummy *Star Fire* being a –thankfully – little-known example), but *Invaders* represented the turning point when videogames arrived and began to rob the nation of its 10 pence pieces. Next came the wave of games which introduced moving backgrounds and starfields along with power-ups and the like. Games like *Lightforce* were true forefathers to many a console game. Yeah, so games like *Super Aleste* on the SNES use preposterously enormous explosions and seemingly obligatory screen warping effects, but is the game itself really that different to *Slapfight*? Of course it isn't.

DEFENSIVE

The arcade movement which followed *Invaders* was the left/right scrolly-shooty experience. *Guardian* was, and still is, one of the closest *Defender* 'tributes' yet seen, and it was on the 64 in the early 80s. Archer Maclean refined the concept shortly afterwards with his superb bloke-with-a-jetpack-based *Dropzone*. And what's the latest shoot-'em-up which has SNES-owners drooling with desire and chomping at the bit in anticipation? *Super Dropzone*,

IN THE BEGINNING

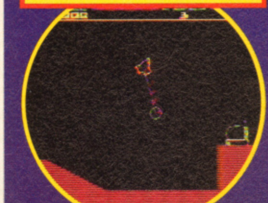
Take just about any popular console shoot-'em-up today and with careful examination you'll be able to spot the influences from the C64 - our family tree should help as a guide.

***SPACE INVADERS* ARCADE • TAITO**
Er, do we really have to spell anything out about this game.

***EAGLE EMPIRE* • ALLIGATA • C64**
Steve Evans' supreme *Galaxians* clone. Rather embarrassingly, still great.

***GALAXIBIRDS* • FIREBIRD • C64**
Sensible's 'joke' tribute to the genre. Silly, but playable with it.

***THRUST* • FIREBIRD • C64**
Video game inertia never felt this good. Fantastic little space shooter. £1.99.



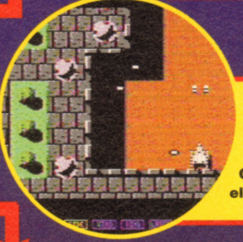
***ATTACK OF THE MUTANT CAMELS* • LLAMASOFT • C64**
Early proof that the Yak knew his stuff. Camels, though?

***WARHAWK* • FIREBIRD • C64**
Similar to the arcade game *Gaplus* and a good early budget title.

***DELTA* • THALAMUS • C64**
Fairly well-received horizontal shooter that's a stunner in the speed department.

***ZYNAPS* • HEWSON • C64**
Aren't you glad we gave this beauty away on our covertape?

***LIGHTFORCE* • FTL • C64**
Great, but probably remembered most for its superb Hubbard soundtrack.



***SLAPFIGHT* • IMAGINE • C64**
You want power-ups? You got 'em. Oh, and everything else? Yep, that too.

***IO* • FIREBIRD • C64**
(Sir) Bob Stevenson lent his arty hand to this short but sweet effort.

***GUARDIAN* • ALLIGATA • C64**
Another Steve Evans classic. I wonder what he's doing now. Hmm...

***CHOPLIFTER* • Broderbund • C64**
The original heli-based game. It became an arcade game later, surprisingly.

***DROPZONE* • US GOLD • C64**
Archer now collects expensive cars. That may be proof of this game's quality.

***AIRWOLF* • ELITE • C64**
Jan Michael Vincent didn't make it, but perhaps that's no bad thing.

***SUPER ALESTE* • TOHO • SNES**
Special effects laden, weapon-crazy, blast bonanza. But what's new?

***SUB TERRANIA* • SEGA • MEGADRIVE**
So similar to *Thrust* you'll swear they stole its algorithms. Around £45.

***SUPER DROPZONE* • PSYGNOSIS • SNES**
The jury's still out on whether this justifies its 'Super' tag, but we're sceptical.

***CHOPLIFTER 3* OCEAN • SNES**
Put the two above games in a blender and you'll make a mess. Or this game.

***PARODIUS* • SNES • Konami**
'Humorous' blaster – it's a parody, y'see, geddit 'Paro'-dy – which pulls ideas from just about everywhere.

that's what. 'Hey, let's stick in some special weapons and, um, some bosses, that'll do...' Riiight.

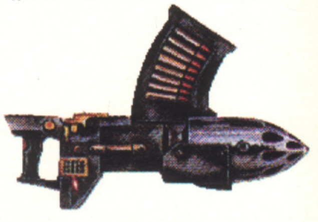
An isolated case, though, surely? Actually, no. *Choplifter* appeared on the C64 in '82 and was followed by the TV licensed *Airwolf.* And now SNES owners can enjoy the delights of *Choplifter 3*, no less. The classic rescue scenario remains and it includes many elements which made *Airwolf* popular all those years ago. Not even Jaguar owners are safe from accusations of pilfering; the 64 had a great version of *Tempest*, called *Axis Assassin* (and what a great name that was), way back in 1985. And even *Gryzor* – another outstanding C64 release from way back – was the prequel to *Super Probotector* on the SNES. Is the picture becoming clear yet?

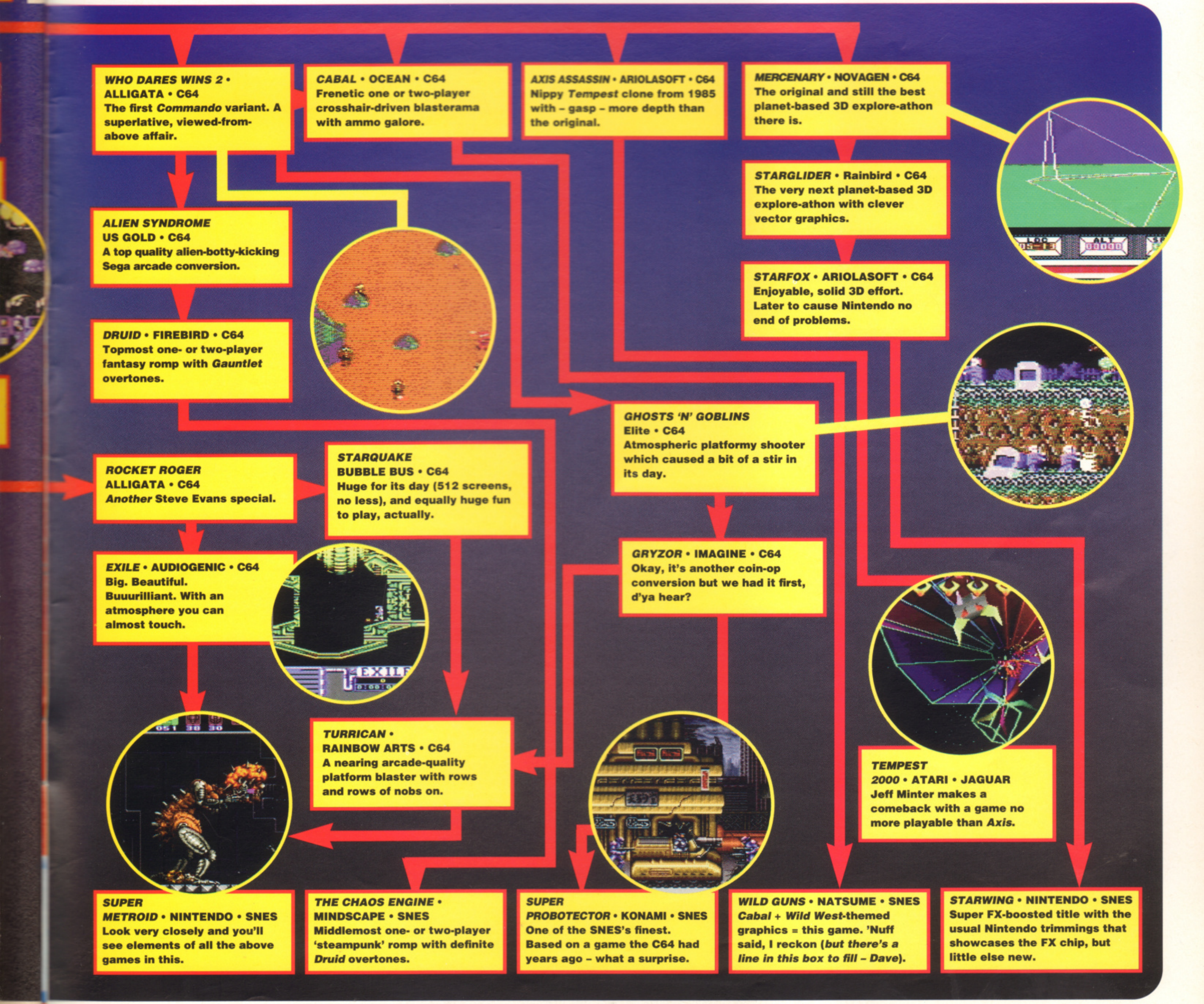
IN COMMAND

But if those observations are obvious, there are many more where the inspiration isn't nearly as apparent. Let's go back to *Commando*, and the magnificent mayhem demonstrated in *Who Dares Wins 2*. It was arguably the game which introduced this conceptual interpretation of overhead shooting action to the home. It influenced a whole new game design theme, one example of which being the fabulous two-player *Druid*. This was, of course, aeons before console owners enjoyed the opportunity of similar action through games like *Pocky and Rocky* and *The Chaos Engine*. *Druid*, too, was a far more involved game, with bags more things to see and do than in either of those products of the 90s. Proof indeed that even if game ideas are directly lifted, the results are often much shallower than the original.

How about other areas, though, the more specialised stuff? The games which supposedly push back boundaries; games like *Starwing*, the super-charged, custom chip-powered, 3D shooting extravaganza, surely that can't have its roots nestling in C64 soil? Well, what do SNES owners think *Argonaut* (the game's chief programmers) were doing before they happened upon Nintendo's money-spinning baby? That's right – 3D shooting extravaganzas, the likes of *Starglider.* But again, the original game was a more involved undertaking. The player was given total freedom to move throughout the game world whereas the action in *Starwing* is driven from an 'on-the-rails' concept – the player's route through the 3D landscape is dictated by the game. And all because Nintendo decreed that anything more complex would simply be too much for console owners to handle. Bless 'em. Plus, of course, we shouldn't forget the game which foreran them all, *Mercenary.* There's still nothing on console to touch it for depth and atmosphere and that situation looks unlikely to change.

So the next time your SNES or Megadrive-owning pals start spouting off reams of praise for their 'latest', title, be prepared to stifle those guffaws again. It'd be rude not to





***WHO DARES WINS 2* • ALLIGATA • C64**
The first *Commando* variant. A superlative, viewed-from-above affair.

***CABAL* • OCEAN • C64**
Frenetic one or two-player crosshair-driven blasterama with ammo galore.

***AXIS ASSASSIN* • ARIOLASOFT • C64**
Nippy *Tempest* clone from 1985 with – gasp – more depth than the original.

***MERCENARY* • NOVAGEN • C64**
The original and still the best planet-based 3D explore-athon there is.

***STARGLIDER* • Rainbird • C64**
The very next planet-based 3D explore-athon with clever vector graphics.

***STARFOX* • ARIOLASOFT • C64**
Enjoyable, solid 3D effort. Later to cause Nintendo no end of problems.

ALIEN SYNDROME
US GOLD • C64
A top quality alien-botty-kicking Sega arcade conversion.

***DRUID* • FIREBIRD • C64**
Topmost one- or two-player fantasy romp with *Gauntlet* overtones.

GHOSTS 'N' GOBLINS
Elite • C64
Atmospheric platformy shooter which caused a bit of a stir in its day.

ROCKET ROGER
ALLIGATA • C64
***Another* Steve Evans special.**

STARQUAKE
BUBBLE BUS • C64
Huge for its day (512 screens, no less), and equally huge fun to play, actually.

***GRYZOR* • IMAGINE • C64**
Okay, it's another coin-op conversion but we had it first, d'ya hear?

***EXILE* • AUDIOGENIC • C64**
Big. Beautiful. Buuurilliant. With an atmosphere you can almost touch.

***TURRICAN* •**
RAINBOW ARTS • C64
A nearing arcade-quality platform blaster with rows and rows of nobs on.

TEMPEST
***2000* • ATARI • JAGUAR**
Jeff Minter makes a comeback with a game no more playable than *Axis.*

SUPER
***METROID* • NINTENDO • SNES**
Look very closely and you'll see elements of all the above games in this.

***THE CHAOS ENGINE* •**
MINDSCAPE • SNES
Middlemost one- or two-player 'steampunk' romp with definite *Druid* overtones.

SUPER
***PROBOTECTOR* • KONAMI • SNES**
One of the SNES's finest. Based on a game the C64 had years ago – what a surprise.

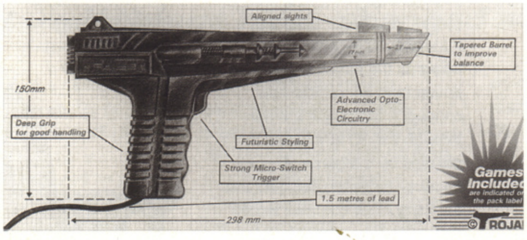
***WILD GUNS* • NATSUME • SNES**
***Cabal* + *Wild West*-themed graphics = this game. 'Nuff said, I reckon (*but there's a line in this box to fill – Dave*).**

***STARWING* • NINTENDO • SNES**
Super FX-boosted title with the usual Nintendo trimmings that showcases the FX chip, but little else new.

SPECIAL OFFER!

THE MAGNUM PHAZER GUN (FOR THE COMMODORE 64/128)

Enter a new phase of computer entertainment with the Magnum Lightphazer. Unleash your imagination and take up the challenge of the six action packed games included in the pack.


Aligned sights
Tapered Barrel to improve balance
150mm
Deep Grip for good handling
Advanced Opto-Electronic Circuitry
Futuristic Styling
Strong Micro-Switch Trigger
1.5 metres of lead
298 mm
Games Included are indicated on the pack label
© TROJAN

Games as follows:- Operation Wolf, Gunslinger, Cosmic Storm, Ghost Town, Baby Blues and Goose Busters. (Different games available for Amiga, Atari ST/STE, Spectrum and Amstrad computers).

RRP £29.99 OUR PRICE £12.99+ £2.50 P.P
PHAZER GUNS ALSO AVAILABLE FOR THE ATARI ST/STE RRP £39.99 OUR PRICE £12.99, THE COMMODORE AMIGA (ALL MODELS) RRP £39.99 OUR PRICE £14.99, THE SPECTRUM 2A/3A RRP £29.99 OUR PRICE £12.99, AND THE AMSTRAD 464/6128 RRP £29.99 OUR PRICE £12.99
LIGHT PENS ALSO AVAILABLE FOR THE COMMODORE 64/128 RRP £29.99 OUR PRICE £16.99 AND FOR THE COMMODORE AMIGA (ALL MODELS) RRP £39.99 OUR PRICE £16.99

PLEASE ADD £2.50 FOR POSTAGE AND PACKING FOR THE ABOVE ITEMS.

* * *

C64/C128 PRINTER INTERFACE

The C64/C128 printer interface is designed so that you can connect almost any parallel/centronics (IBM compatible) printer to your C64/C128 computer.
Complete interface with lead:- **£29.99 inc P/P**

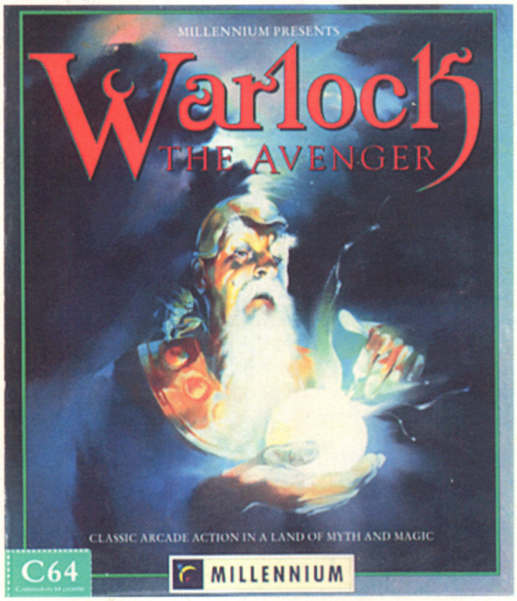
C64/C128 COMPATIBLE DATA RECORDER

£19.99 inc P/P

DATASSETTE UNIT
FOR COMMODORE CBM 64/128
cpc

Commodore C64/C128 compatible Data Recorders with tape counter, fast forward, rewind, stop/eject, play and record facilities. Supplied complete with lead and ready to plug straight into your computer

HURRY - LIMITED STOCKS!



In the beginning there was "Druid", hailed as a milestone game at the time of its release. Then came "Enlightenment" and now there's Warlock the Avenger, the third game in a classic series.

Designed by Dene Carter, Warlock the Avenger takes the player yet deeper into the dangerous world of Belorn, where the evil lord Acamantor has returned to hold the land in his grasp. Strive to reawaken your ancient spells and find your way through eight trap-strewn dungeons, overcoming unknown obstacles, locating secret passage ways and keeping Acamantor's monstrous minions at bay. Your task is to find and destroy the evil power. Only by unleashing the arcane power of Chaos can final victory be yours.

* use elemental forces to cast the most effective spells
* create Golems and work together in the two player game
* avoid gigantic fire-spitting skulls and Acamantor's teeming army of monsters

PRICE £5.99 INC.P/P

* * *

COMMODORE SUPPLIES

Commodore 64 power supplies	£22.99
Commodore 64/128 compatible cassette recorders	£19.99
Commodore cassette head demagnetizers	£9.99
Commodore 64/128 light guns & games cassette	£29.99
Replacement cassette recorder plug and lead	£5.99
Commodore 64 user manuals	£4.99
Commodore R.F. Leads (computer to TV)	£3.99
Commodore 64c modulators	£9.99
Commodore printer/disk drive lead (6 pin din)	£5.99
Commodore colour monitor leads (din /3 phono)	£6.99
Commodore light pens & software (cas/disk)	£29.99
Commodore C64/C128 parallel printer interface	£29.99

DO YOU SUFFER WITH C64 TAPE LOADING PROBLEMS?

Have you ever purchased a game only to find that it won't load! The most common reason for loading difficulties is caused by the tape head being out of alignment with the cassette tape.The asimuth tape head alignment kit enables you to re-align your tape simply and quickly. No technical skills are required. Step-by-step picture guide. Test and re-alignment carried out in minutes! The kit comprises:- Tape alignment cassette, special asimuth screwdriver plus full instructions. Only £9.99
Alignment kits also available for Amstrad CPC 464 and for the Spectrum computers. Please state which computer when ordering

If you would like to be put on our regular mailing list for special offers etc, please write and advise us stating which computer model you have. We also deal with Spectrum, Amstrad, Atari, Amiga and PC Computers.

Access

ALL ORDERS SENT BY RETURN: CHEQUES/VISA/ACCESS/PO's

TRADING POST

VISA

VICTORIA ROAD, SHIFNAL, SHROPSHIRE TF11 8AF TELEPHONE /FAX (0952) 462135